A UNITED STATES DEPARTMENT OF COMMERCE PUBLICATION

Incorporating *International Commerce*

JULY 10, 1972

Commerce Today

Coming Developments in Business and Technology

Businesswomen Look At Future

Newsmemo

Business travelers are among those being reminded of new requirements on reporting the money they take out and bring into the U.S. The regulations apply to any U.S. or foreign currency, travelers' checks, money orders, etc., in excess of $5,000, either being carried by the traveler or otherwise sent out of or into this country. Money carried personally can be reported at ports of entry to the local Customs officer. Money otherwise transported can be reported by mail to Commissioner of Customs, Attention: Currency Transportation Reports, Washington, D.C., 20226. Forms are available at any Customs or Internal Revenue Service office. The regulation seeks to help curb violations of drug smuggling, securities, gambling and currency laws.

Can a small U.S. company expect to make a profit by venturing into today's highly competitive overseas markets? In many, many cases, yes, says the Small Business Administration in an export manual it has now revised and brought up to date. "Export Marketing for Smaller Firms" is aimed at executives who have shied away from exporting because they have believed it is only for the large and experienced operators. It outlines the sequence of steps needed to find and penetrate markets around the world, and answers many of the questions asked of SBA by more than 1,000 potential exporters at 27 recent foreign trade workshops. The manual is available at 60 cents from the Superintendent of Documents, U.S. Govt. Printing Office, Washington, D.C., 20402.

New protection has been designed for U.S. construction contractors against major losses from political upheavals in the world's developing nations. The Overseas Private Investment Corp., introducing its new insurance policy, points to a major feature: the agency binds itself on coverage before the contractor submits his bid. This can lead to more competitive bid prices by U.S. firms. For full details write Application Office, Overseas Private Investment Corp., Washington, D.C., 20527.

The Soviets have begun to work with American scientists on earthquake investigation. In a first action under the provisions of the international guide for data exchange, the U.S.S.R. has forwarded about 200 seismograms for nine earthquakes. The data, gathered from stations in the Soviet Union, will be used to fill requests from U.S. scientists working in the field of seismology. The receiving agency is the Environmental Data Service's World Data Center, a part of Commerce's National Oceanic and Atmospheric Administration.

The story of oysters and clams, from sea to table, has been judged so interesting by Universal Pictures that it will send a documentary film about it into the nation's movie theaters this fall. "Take Two From The Sea" was produced by the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration. A 28-minute version of the same film is available free for group or TV showing, and prints of it may be purchased. Write Chief, Motion Picture Service, Office of Public Affairs, NOAA, Rockville, Md., 20852.

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Vol. II, No. 20, July 10, 1972

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COVER: *Commerce Secretary Peter G. Peterson talks with minority businesswomen attending the first National Conference on Businesswomen of which Mrs. Peterson was Honorary Co-Chairman in Washington. Story of the outcome begins on Page 4.*

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ECONOMIC
HIGHLIGHTS

Housing Construction Continues To Boom Following Spectacular Two-Year Upsurge

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

Homebuilding has surpassed even the most optimistic forecasts by rising almost without pause since early 1970, and it is continuing to boom in 1972. This spectacular rise to an unprecedented level was fueled by strong demand from a youthful population, the generous supply of mortgage funds at moderate interest rates, and expanded Government programs.

The housing success story began more than two years ago, following a decline during 1969 when mortgage funds were scarce, reflecting the general monetary restraint that was applied to curb inflation. From the low point in early 1970 to early 1972, the trend was strongly upward.

The vigorous housing expansion appeared to be threatened in the spring of 1971 when savings flows declined and mortgage interest rates started climbing. Following the introduction of President Nixon's New Economic Program in mid-August, however, interest rates declined and savings flows spurted upward again and the pace of housing starts accelerated.

Conventional housing starts exceeded 2 million units in 1971, surpassing the previous peak in 1950 when the nation was still suffering a severe housing shortage because of World War II and, to some extent, the depression of the 1930s. Starts continued to climb early this year and the annual rate of 2.5 million units in the first three months set a quarterly record.

The housing picture is even more impressive when mobile homes are considered. The total of conventional starts and mobile home shipments currently is close to an annual rate of 3 million, or almost 50 percent higher than the banner year of 1950, when mobile homes were an insignificant proportion of total housing.

In 1968, Congress established a ten-year housing construction goal of 26 million units, or 2.6 million per year. The target was recognized as an ambitious one; yet, it was reached last year and is being substantially exceeded so far this year.

Homebuilding has played a key role in the current economic expansion. It made the earliest and strongest recovery of any sector, although the main economic thrust from now on will be provided by other sectors such as consumer expenditures and business spending on plant and equipment. The housing boom has stimulated the demand for construction materials and household furnishings.

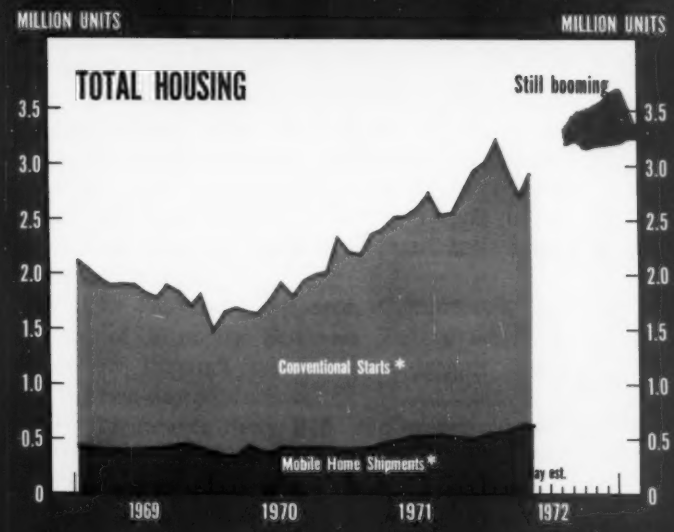
Housing in the second quarter of this year will not match the extraordinary level of the first quarter, but conditions are favorable for a continued high level of activity. Relatively low vacancy rates indicate that demand is still strong. Financial factors continue favorable. Interest rates are still at moderate levels and savings flows set another record in the first quarter.

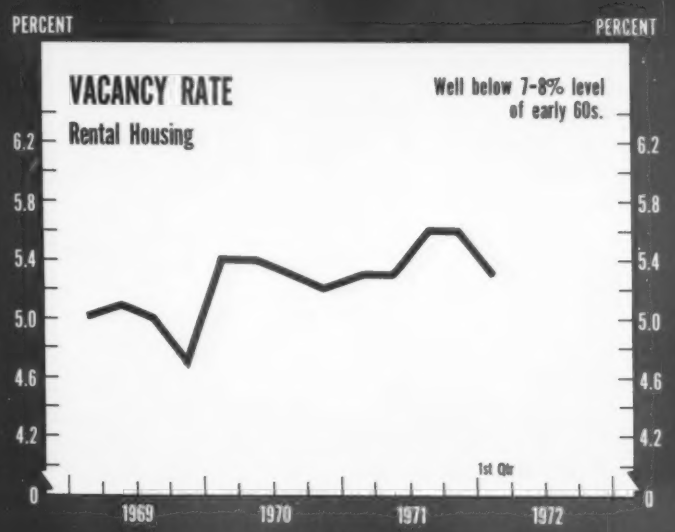
Thus, the outlook for housing continues very promising and another record year seems certain.

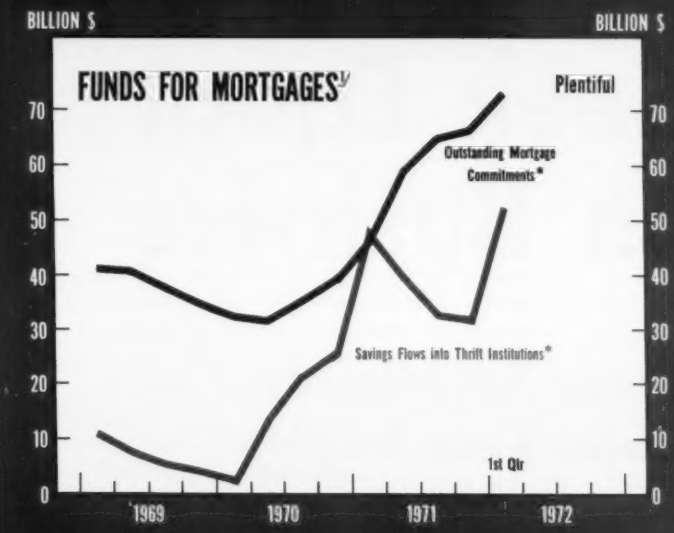
Other economic data

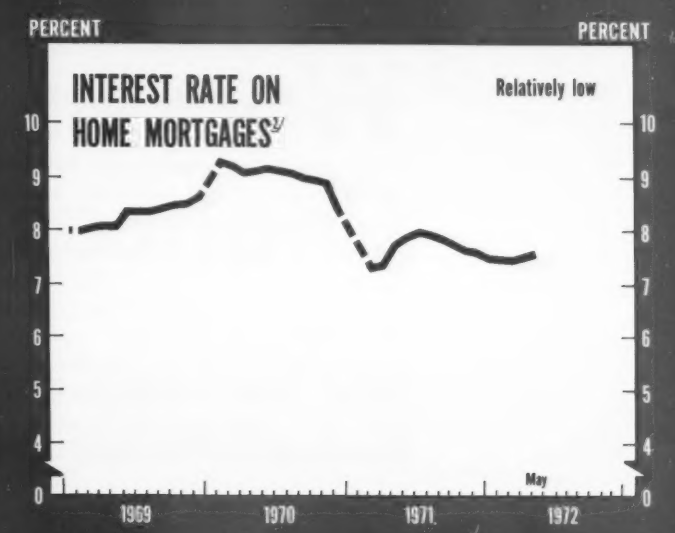
The Consumer Price Index has increased at a relatively low rate in the past three months following the anticipated bulge in the months immediately after the freeze. The merchandise trade balance improved in May, and a further narrowing of the deficit is expected during the last half of the year.

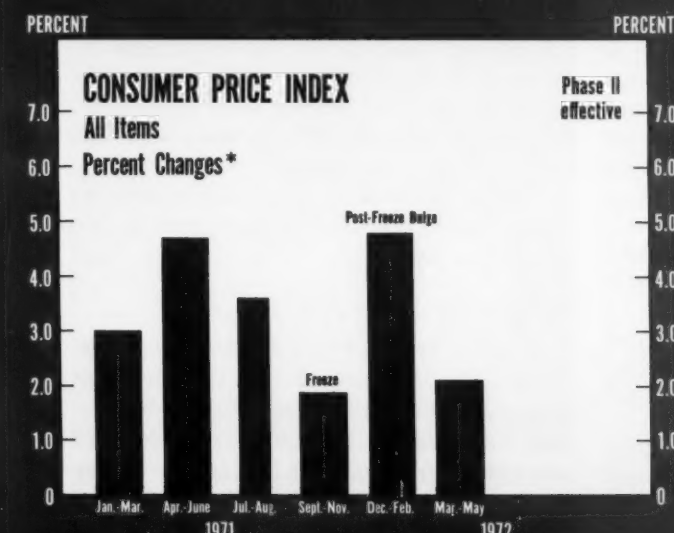
Latest Indicators

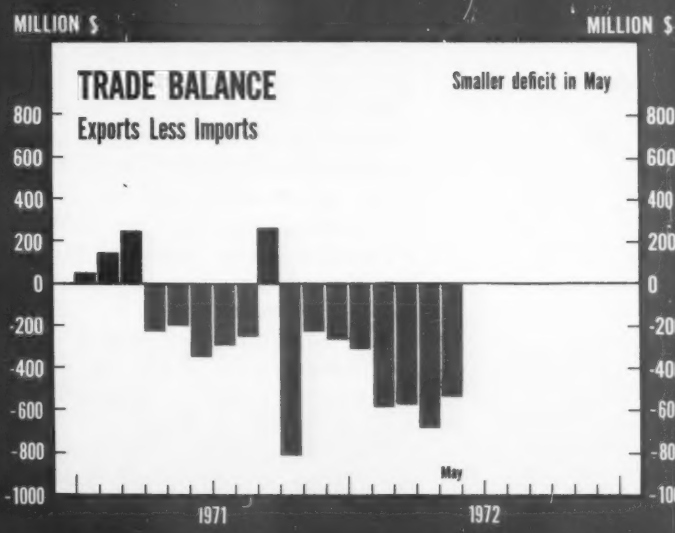












[1] Savings flows are to savings and loan associations and mutual savings banks. Commitments are those made by S & L's and New York State mutual savings banks.
[2] Secondary market yields on FHA mortgages
* Annual rates
All data seasonally adjusted except interest rates and vacancy rates.

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Women Seek Equal Chances In Business

First National Conference For Minority Businesswomen Produces Keen Insights

A beautiful 24-year-old black woman used ingenuity, private financing and marketing skills to build a million dollar import business in Atlanta, Ga.

An ambitious Indian woman, frowned upon by her tribe and denied any assistance by its elders, had to make it in two smaller firms before she could found her building materials company, Thermo-Wall. She is struggling to find resources to build a plant in Washington state to manufacture her product and market it.

The Southern black success story belongs to Gwendolyn Davis Claytor, vice president of Oriental Imports. The Indian is Violet Rau, of Toppenish, Wash.

They were among 500 women who took the Nation a definite step forward toward making equal business opportunity available in the future to *all* women.

DISCUSS SOLUTIONS—*Margaretta Bell (right), OMBE coordinator for the conference, discusses conference goals and solutions to problems with Audrey Oliver, a Denver, Colo., businesswoman.*

That step was taken in a first conference of its kind, the National Conference on Business Opportunities for Women, last month in Washington, D.C.

The women—of all races, nationalities and ages—came from throughout the country to air their successes and failures as businesswomen. They identified barriers and sought solutions to problems facing them individually as businesswomen and their group in general.

The conference sponsor, Commerce's Office of Minority Business Enterprise, will follow through on recommendations from the two-day conference.

Margaretta Seay Bell, conference coordinator for OMBE, said followups are planned through individual attention to the conference participants and probably regional meetings or workshops, an idea which gained much popularity at the national meeting.

For example, Violet Rau will receive technical assistance and other aid from an OMBE representative recently stationed in Washington state.

Jessica Howard, a prospective businesswoman who attended the conference, will get advice and direction from an OMBE field representative in Cleveland where she plans to open the Crystal Ball Boutique. She learned about SBA loans, merchandising, promotion and store layout as a part of the national conference last month.

> ***"We set out to raise questions, to surface problems facing women in business and I believe we have done that. Our task in the future is to begin a systematic way to seek solutions to those problems."***
> ***Mrs. Sally Peterson***
> ***Honorary Co-Chairman***
> ***National Conference on Businesswomen***

Mrs. Bell said all followup activities will be directed toward encouraging women to venture into the business world. These will include regular meetings to discuss progress of women in business, development of a vehicle for cooperative efforts in technical management assistance services for women and working closely with other Federal agencies to promote business opportunities for women. The final report of the conference will recommend an ongoing course of action to bring women into the mainstream.

WIG IMPORTER—*Gwendolyn Claytor (right), answers questions from Commerce Secretary Peterson and Mrs. Peterson about her million dollar wig import business—Oriental Imports. In background is Edward Hailes, who gave the invocation.*

John L. Jenkins, director of OMBE, called the conference "Just a beginning."

"The implementing tasks now begin and we will succeed because the urgency of the need, the rightness of time, and the demands of women make it imperative that we succeed," said Jenkins.

"If minority enterprise, as a major economic program, is to succeed," Jenkins asserted, "It must incorporate women as well as men, and perhaps more so—because women constitute more than half the population and control nearly three quarters of the wealth."

Among barriers cited by the women were:

- Difficulty in obtaining loans. This involves attitude of persons in authority at lending institutions toward women's capabilities of management and business acumen; concern of lenders about women of childbearing age; and the view that single women are not stable enough to guarantee debt payment.
- A negative attitude on the part of potential customers, black or white.
- Lack of confidence in the prospective businesswoman.
- Traditional underutilization of talent, underemployment.
- Inadequate training for top positions; exclusion from top level corporate positions; counseling geared to certain jobs.
- Difficulty in establishing credibility in relation to performance.

FIRST FOR WOMEN—*Women came to Washington from throughout the country to discuss ways to succeed in the business world. They heard government and industry spokesmen give details of programs available to small businesses and members of minorities who want to go into business.*

- Lack of experience in business enterprise itself after the traditional line of employment for women is passed.
- Lack of business knowledge, experience in contract negotiations and exposure or expertise in dealing with the available sources of credit and financing.
- Minority women in particular have been instilled from elementary school through college with the idea that it is *safe* to be a secretary, school teacher, or social worker. Entrepreneurial avenue, until very recently, was almost a taboo subject for black women.
- Lack of knowledge of the kinds of businesses most easily and effectively run by women, such as a travel agency, as opposed to a construction company.

Noting the special problems that require a little extra effort on the part of women in business, Mrs. Sally Peterson, wife of Commerce Secretary Peter G. Peterson and honorary co-chairman of the conference, commented that "For minority women we are facing now a far less hostile world than Martin Luther King dared to encounter."

Co-chairmen keynotes

Mrs. Peterson and Mrs. Inez Kaiser, co-chairman of the conference and OMBE's national coordinator of business opportunities for minority women, were keynote speakers at the conference. The Commerce Secretary's wife was introduced by Arnita Young Boswell, executive chairman of the League of Black Women in Chicago and sister of the late Whitney Young.

Mrs. Kaiser, president of Inez Kaiser & Associates, Inc., a public relations consulting firm in Kansas City, Mo., said "it is encouraging that both people and the government are beginning to realize that business is a woman's world, too. Also, that we can contribute and perform on an equal basis with our male counterparts."

Polly Gallardo, conference representative for Spanish-speaking and Indian women in the Southwest, said there are "common problems that confront all women in business and I think we all need to unite and work very closely together in order to really achieve the benefits that I think are possible."

Representatives of Federal agencies with programs designed to help business people, and a number of successful businesswomen, participated in a series of panel presentations.

Gwendolyn D. Claytor, who made her success in importing wigs and is expanding to other import products, led a workshop panel on exporting and importing.

Other panels discussed advertising and public relations, the apparel industry, child care services, construction industry, health services, manufacturing, professional services, real estate and retailing.

"The Need for Change in Attitudes Toward Women in Business," was covered by Angela Cabrera, director, Community Affairs and Public Relations for Puerto Rican Forum, Inc., of New York.

Dorothy Orr, Assistant Commissioner, Division of Human Rights for the State of

AT RECEPTION—*OMBE Director John L. Jenkins (left), is shown at reception with conference participants (from left) Jane Barton, of Miami, Inez Kaiser, Hilda Anderson and Lavon Rukin, all of Kansas City, Mo. Mrs. Kaiser is national coordinator of business opportunities for minority women.*

New York, led a panel of four industry representatives discussing "Business Opportunities Available From The Private Sector."

Marion Corwell, a North American public relations representative of Ford Motor Co., told a luncheon audience that women in business today must gain the respect of their male counterparts by the job they do and the way they do it . . . by "day-to-day high-level performance."

"America needs the relatively untapped ability and talent that the majority of adult population has to offer," she asserted.

"If women would shake off their complacency—and emerge—not as dedicated feminists storming the fort to mount a frontal attack against the men—but as dedicated leaders at every level—they could be a mighty force for good and make unlimited contributions in every area of contemporary life," the Ford Motor Co. representative continued.

She said leadership offers countless positions of varying opportunity and the time has come for women to assume a greater share of leadership in every area of life.

"Leadership at the highest pinnacles will carry heavy responsibility. I hope there are women with the fire and iron to qualify even for these places.

"Such women must have the finest preparation to ready themselves for places of top responsibility," she concluded, "Their reward will be the attainment of these highest pinnacles of achievement, and the rendering of an immeasurable service to their times."

—*Office of Minority Business Enterprise*

DEFINING GOALS—*Dr. Ethel Allen, (left), Philadelphia Councilwoman and conference attendee, discusses goals of businesswomen with Mrs. Sally Peterson, wife of Secretary Peterson.*

Nationwide Business Assistance Needed To Avoid 'Brownouts'

Commerce Secretary Appeals To Industry To Follow 15-Point Plan To Save Electricity

Urging nationwide cooperation to avoid major power interruptions, Secretary Peterson has presented a 15-point plan to the business and industrial community to save electricity this summer and improve the fuel and energy supply for the winter.

The Secretary of Commerce's appeal to industry, mailed to 50,000 company presidents, business and trade organizations and editors, is part of a three-pronged Federal Power Conservation Program.

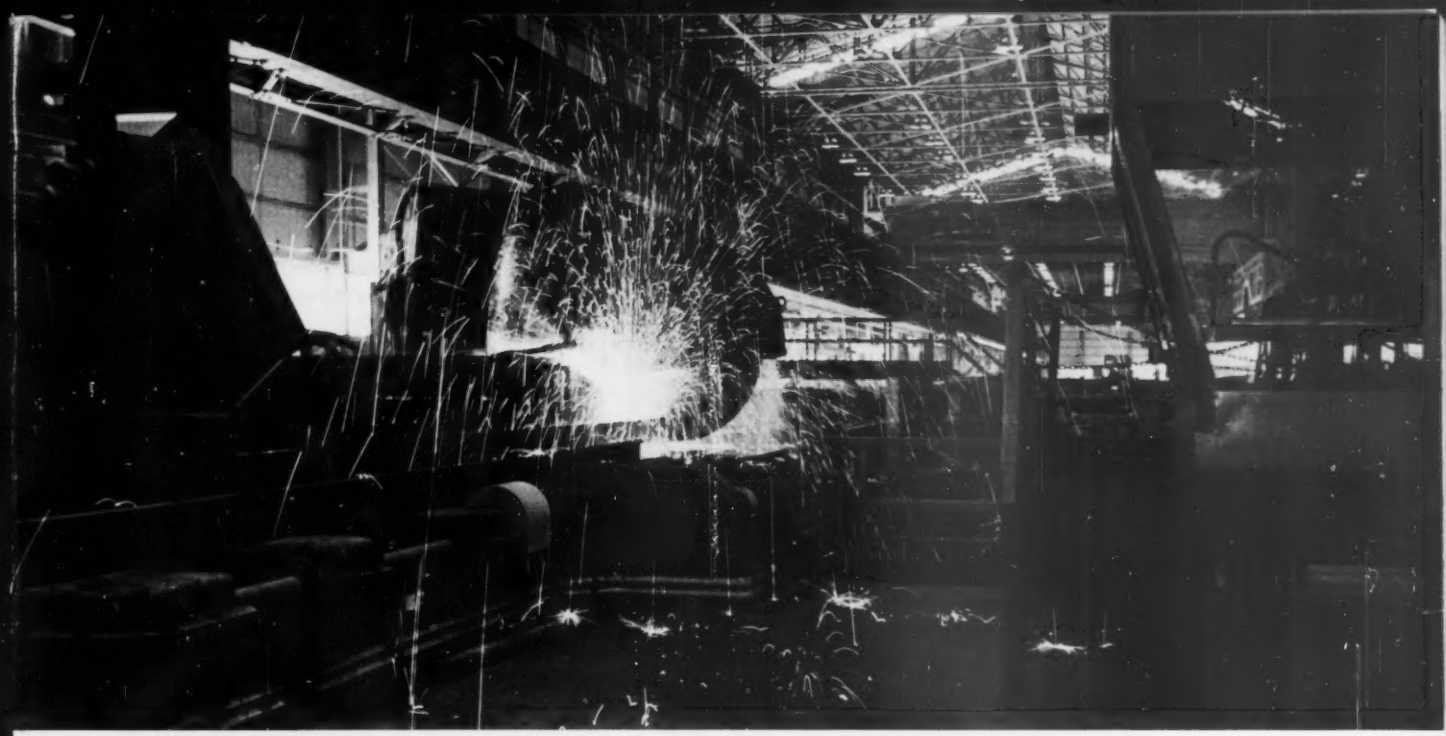
A public conservation program under the Special Assistant to the President for Consumer Affairs will promote the need of conservation by private citizens. The General Services Administration will head a program to conserve energy in government.

Secretary Peterson, a member of the President's Joint Board on energy supply matters, said the Board's recent survey found certain areas of the country to lack the sufficient cushion in maximum generating capacity for anticipated peak loads. This presents a potential service problem.

"Conservation in the use of all forms of energy should reduce demand significantly—perhaps as much as five percent," Peterson stated.

The Joint Board reported that while generating capacity has increased, power requirements have advanced faster.

Additionally, many of the new generating units that had been expected to be in operation to meet peak load demands this summer will not achieve commercial service sta-



ENERGY IMPORTANCE—*The energy crisis grows more important every day, with the growing requirements of industry, which uses energy in all phases of production, such as this cutting of wide flange shapes in a steel mill. Commerce Secretary Peterson has asked for a national commitment to turn the promise of energy research into reality, in addition to appealing to industry to save electricity this summer.*

tus before the fall. Prolonged hot weather and unscheduled plant outages, as well as delays in bringing new plants on line may aggravate a potentially dangerous capacity situation in certain areas.

Act as stimulus

"Conservation measures are peculiar to individual users," the Secretary told industrial and business users, "Therefore, the proposed measures are to act as a stimulus to development of additional means as they apply to your operations."

"Conservation programs may best be developed by consultation between users and suppliers."

Measures suggested in the Bureau of Domestic Commerce's second annual conservation program involve planning and review of energy uses.

These suggestions, drawn from private, industrial and government sources, are offered as ways to conserve power in the long term and reduce power during peak load periods.

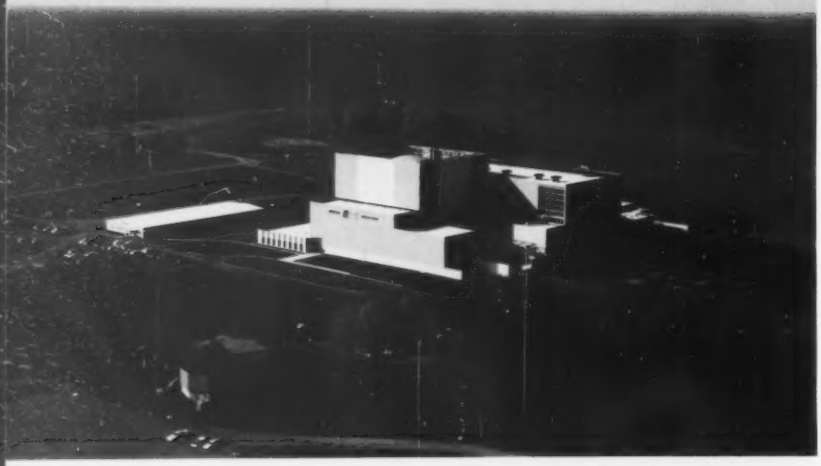
Reschedule For Off-Peak Periods—Consider rescheduling work hours, production or any special operations to off-peak periods. An example of ways to do this is for a plant to start refrigeration equipment an hour or two earlier than normal and pull the temperature down a few degrees below normal. By reducing the temperature lower than usual and then resetting the water chiller thermostat higher than normal, the power demand during the peak load period will be less. If the equipment has a demand limiter, further reductions in peak power demand can be realized by resetting the limiter to 80 percent during the working day.

Additionally, if feasible with operations, a substantial power saving can be realized by shutting the chiller down one hour before the normal end of the day. If the chilled water pump and the air conditioning fans are allowed to continue operation, generally no objectionable increase in space temperature will be noted. This same procedure can be applied during any peak period defined by the electric utility.

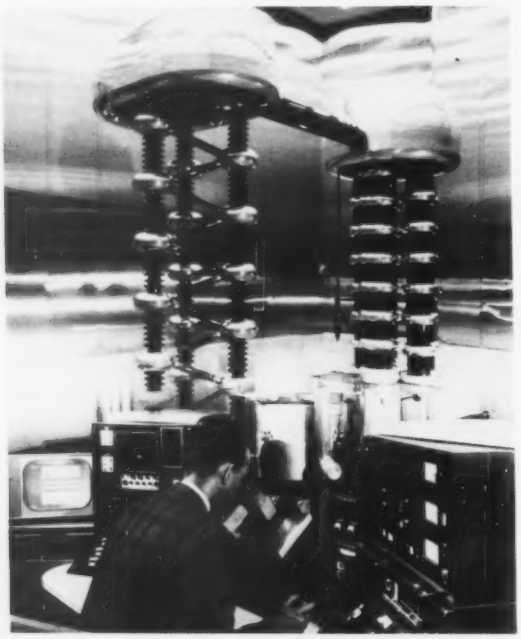
Conduct Plant Load Survey—Considerable savings could be made by properly loading motors, adjusting belting, and eliminating unnecessary shafting.

Reduce Maximum Demand—Current to some electrical heating equipment (such as oil heaters, core baking ovens, heat-treating and annealing furnaces, and melting furnaces) could be reduced or interrupted for short periods with little or no loss in temperature, and no loss in production.

Motor-driven air compressors can be unloaded for brief intervals without stopping



POWER TO NEW YORKERS—*Ginna Station in Ontario, N.Y., is a major source of electricity for 820,000 residents served by Rochester Gas & Electric.*



ELECTRON MICROSCOPE—*This user of electric energy requires its own building to house the electron accelerator (top), microscope column and console (bottom). The microscope's lens system provides for maximum direct magnification of 200,000 times.*

the motor with little loss in pressure. Machines connected to motors by means of magnetic or pneumatic clutches may be declutched without stopping the motors. Also consider reducing load for off seasonal operations not now requiring maximum demand.

Check Power Factor—Determine and correct low power factor; that is, the ratio of true watts to volt amperes or the phase relationship between voltage and current. Generating equipment, transformers, switchgear, and the like capacity if the power factor is low, thus the initial cost of equipment can be lower if unity power factor is maintained. Improvement of the power factor reduces system losses and avoids a billing penalty.

Convert To Higher Voltages—Where practical and found more economical, convert to higher voltage systems.

Use Standby Generators—In special cases and in cooperation with utility companies, consider use of emergency standby generators during peak load periods.

Reduce Ventilating Air—Where safety permits, reduction in ventilating air can result in substantial power savings. In some cases, reducing ventilating air quantities 60 percent can reduce power load by 12.5 percent.

Cut Cooling In Unoccupied Spaces—Where practical, and found to be economical, turn air conditioning thermostats up or off at night and on weekends in spaces and buildings unoccupied during those periods.

Use Photocell Switches—Install photocell control switches on exterior lighting for parking lots, building lighting, and security flood-lighting.

Add Timeclock Controls—At selected locations, supplement photocell controls with timeclock controls to further reduce lighting after certain hours.

Cut Back Lighting Load—Since lighting contributes a significant heat load, turning off lights will not only reduce the air conditioning load but energy consumption as well. In some cases, all perimeter lighting can be turned out and natural lighting used. In certain areas, every other light could be turned off during peak load periods.

Raise Thermostat Setting—A power savings can be realized by increasing the thermostat setting five degrees fahrenheit or more if feasible, thus reducing the amount of cooling required for ventilating air.

Maintain Equipment—Keep equipment in top operating condition, that is check for steam leakages, keep all heat transfer surfaces clean, including air conditioning systems, see that motors operate at designed voltages and avoid unbalanced voltages in three-phase motors.

Alternative Power Sources — Consider where feasible, the use of alternative heat sources, such as unused or waste heat.

Total Plant Energy Balance—For greater efficiency and savings a total plant energy balance or system approach should be considered rather than a single area.

U.S. Seeks Bigger Slice Of World's Convention Business

Federal Units Spur Drive To Bring More International Meetings To America

Uncle Sam wants to give U.S. convention managers the business.

Millions of dollars of it.

Three years ago, the Commerce Department's United States Travel Service set up an International Conventions Office. Richard H. Henry, Paris-based Director of the Office, began the exacting task of developing an information data bank and sales leads on international associations worldwide with a potential to meet in the U.S.

Within a short time, Henry and his assistant, Miss Claude Dujols, had identified several hundred prospects, but U.S. convention sales managers were largely pre-occupied with the domestic market.

Today, convention manager interest in international conventions is growing rapidly.

"But competition for the business could be sharper," observes Roger P. Biver, USTS' Washington-based International Conventions Manager.

"The market's wide open and there's still time to get in on the ground floor. It's a fine opportunity for the convention manager on the lookout for new business."

Complementary functions

Biver works primarily with U.S. convention and visitors bureaus and chambers of commerce across the country. The Paris office, located in Eùrope since 80 percent of the world's multinational associations are headquartered there, deals mainly with international associations. "Dick Henry and I perform complementary functions," Biver says.

Henry is a gatherer of commercial intelligence, determining which associations in the world are the prime prospects for U.S. convention and visitors bureaus and which are legally and financially able to meet in the U.S., but have not recently done so.

Subsequently, he promotes U.S. conven-

tion sites to international association managers in those cases in which the U.S. affiliate is willing to host a congress.

In Washington, Biver coordinates activities designed to encourage U.S. convention bureau managers to take advantage of the intelligence Henry collects and disseminates.

Biver notes that "not all managers need encouragement." Some, he indicates, have been in the international markets for years, "but many do need this encouragement.

"There's a great deal of turnover in the convention field, as there is in other fields today," he said. "A number of aggressive young people without international experience are moving into convention sales jobs. And some thoroughly-seasoned convention bureau managers, especially those in the smaller cities, have never considered competing for international congress business."

Biver points out that it is this type of manager with whom his office is trying to work closely.

"The challenge is to get more U.S. convention bureaus into the international field, which represents a market opportunity that the U.S. should be exploring," he says. "This market represents millions of dollars of potential business for U.S. cities, thousands of dollars of potential sales and excise tax revenues, as well as foreign currency earnings."

In a recent interview, Biver discussed the magnitude of this market and just what USTS can do to help U.S. communities win more foreign congress business.

Q. Just how big *is* the international congress market?

A. One European scholar puts the value of the international congress market at $500 million annually. Of course, a distinction should be made between "international" and "intercontinental" markets. An association may be free to meet outside the seat of its headquarters, but not financially able to convene outside its home continent. And even if it is able, it may not have a U.S. affiliate.

The intercontinental market consists of those international associations which are legally and financially able to meet anywhere in the world and which have a U.S. chapter. It is smaller than the international market, but it is still significant.

Q. Just how sizable is this market?

A. There are approximately 2,600 international associations worldwide, and our International Conventions Office in Paris estimates that up to 1,000 may have a future potential to meet in the U.S. More research will be required to accurately estimate the true potential in terms of both conventions and dollar earnings for the U.S.

Roger P. Biver
International Conventions
United States Travel Service
Washington, D.C.

Richard H. Henry
International Conventions
United States Travel Service
Paris, France

Q. But foreign participants would represent only a portion of the market?

A. That's right. Because the U.S. affiliate is involved, a substantial number of *American* delegates will attend an international congress held in the U.S., and many will bring their wives. U.S. attendance could run into the thousands.

When a U.S. city lands an international congress, it not only bags international business—it also captures U.S. business which, otherwise, would have gone abroad. A U.S. convention and visitors bureau can't really realize its full potential until it begins competing for international—or, rather, intercontinental—conventions.

Q. Does a U.S. city need a convention center to attract international congresses?

A. Not if other suitable facilities are available.

Q. What is meant by "suitable?"

A. Depending on the needs of the organization, there would have to be sufficient hotel space to lodge the visitors and adequate conference and seminar space for large or small scheduled meetings.

Q. How about translation equipment?

A. Most international organizations require simultaneous translation equipment, and some of the best and most up-to-date equipment is available right in the United States.

Q. Where does a convention bureau manager locate qualified interpreters?

A. The companies which supply translation equipment have lists of qualified interpreters. This country has one of the widest selections of able interpreters in the world, incidentally.

Q. It has been pointed out that not enough U.S. convention and visitors bureaus are actively soliciting international business. Why is this, when there's so much potential in the market?

A. It's a matter of priorities. A good many U.S. convention bureaus just don't have the budgets or the personnel to follow up on the intelligence USTS gathers. Others are unfamiliar with international business, and they tend to give priority attention to national conventions.

Q. Are budget limitations a problem for many U.S. convention bureau managers?

A. Yes—generally because the citizens of the community may not fully appreciate the contributions a convention bureau makes and *can* make to their city.

Q. What kind of contributions?

A. Economic contributions. A convention bureau attracts conventions and conventioneers spend money. The average convention-goer, in fact, spends about $50 a day.

Money spent in a community by conventioneers reacts on the economy much as an investment does. It is "new money" pumped into the region and it has the same multiplier effect that new money does.

Q. As a multiplier, this "new money" turns over and over and helps generate new demand and, eventually, new jobs. It stimulates investment, in other words?

A. Exactly. The dollars a convention-goer spends become income for hotel, restaurant and other service personnel. Subsequently, these dollars are spent again—on rent, food, and other basic necessities. In the process, they generate earnings for real estate interests and other investors who may "plow back" a portion of their profit into plant expansion and new equipment.

A sizable convention industry will create jobs in a community. For example, for every $20,000 convention-goers and tourists spend in an area, a new job is generated. For every 100 people employed in the travel industry, 60 to 100 jobs are created in related and back-up industries. A convention bureau is actually a developmental agent. If it is active and well-supported, it contributes to community growth—without any capital investments at all. The returns trickle to all segments of the community.

Q. How many U.S. convention and visitors bureaus are actively competing for international business?

A. Most of the active competitors are members of the International Association of Convention Bureaus. It's a rather modest number and generally limited to those cities whose convention bureau managers have had prior international experience of some kind.

Q. How are these bureaus competing? What are they doing?

A. The most successful are going after international business the same way they go after *national* conventions. They're making professional presentation to the U.S. affiliates of international associations—urging them to extend an invitation to their respective international secretariats. They're also making the local affiliate of the national association a major contact point.

PROFIT POWER—*More international conventions held in the United States can mean more funds for U.S. firms from overseas orders, and more monies spent in U.S. communities by foreign visitors at the time of the conventions. The Commerce Department's United States Travel Service has been acting to bring more such congresses to this country.*

The local affiliate is often the *key*. Its members must be convinced that hosting the international is in the best interest of the association, the local community and the United States.

Q. Why is that?

A. An international association is made up of many national associations. When the international holds a congress, one national member has to act as the official host. It has to be willing to invest time and organizing effort in the congress. An international association normally picks its convention venue after considering a number of invitations extended by bidding member-countries.

Q. Is there any assistance that USTS gives to internationally-minded U.S. convention and visitors bureaus?

A. Yes. USTS can and does help in a number of ways. First, it develops and provides the international "leads," including the names and addresses of specific contacts in the U.S. The USTS computer information bank on international organizations is available to the convention industry in this country.

(Biver noted that at every opportunity USTS personnel participate in meetings, seminars and symposia, and contribute information on questions and problems concerning international conventions. They also visit convention cities and facilities and help those who need assistance in developing effective techniques of attracting international congresses. In addition, they make it a practice to contact the U.S. chapters of international associations—to urge them to consider hosting an upcoming congress of their parent organization. And they are trying to create a national awareness of the importance of international congresses to the local and national economies.)

Q. What about sales aids? Does USTS supply any selling tools to U.S. convention bureau managers?

A. Yes. USTS can provide guidance, foreign language promotional material, official letters of welcome. . . .

Q. Money?

A. Yes. The office offers financial assistance to help defray the cost of simultaneous language translation equipment and interpreter service.

Q. Will USTS work with U.S. association managers and trade show producers who would like to attract foreign delegates and exhibitors to national meetings?

A. Yes. USTS' eight regional offices abroad will place press releases and other pertinent information in the hands of the media, the professional journals and the travel industry for maximum exposure in various languages. USTS can also make foreign language "VISIT USA" literature available to potential convention participants before their departure for the U.S.

Q. How about planning assistance with post convention tours?

A. USTS personnel abroad can assist in the local planning of group travel and pre- and post-convention tours to and within the U.S.

Q. Will USTS promote U.S. national shows or conventions to foreign tour operators?

A. USTS publishes an annual listing of *United States Conventions and Trade Shows* which welcome attendance from abroad. This guide receives wide circulation in both professional and travel trade circles.

Managers can get a show or convention listed in the guide by writing the United States Travel Service, U.S. Department of Commerce, Washington, D.C. 20230.

—*United States Travel Service*

New Trademark Treaty Draft Would Require Change In U.S. Laws

Recent Geneva Committee Of Experts Meeting Agreement Seen Beneficial To U.S. Business

Significant progress toward the realization of a treaty simplifying the international filing and registration of trademarks was achieved recently at a Committee of Experts meeting in Geneva, Switzerland. The U.S. Delegation to the meeting was headed by Commissioner of Patents Robert Gottschalk and included representatives from the private sector.

As a result of the meeting, a new draft of the Trademark Registration Treaty (TRT), is now being prepared for final consideration at a Diplomatic Conference presently scheduled to be held next spring in Vienna, Austria.

The Treaty is expected to be of considerable benefit to U.S. companies doing business abroad.

An issue of particular interest to the United States involves an article in the draft treaty which states that a country may not require, as a prerequisite to obtaining or maintaining a registration, use of a mark until three years after its international registration. The treaty draft had provided alternatives of three to five years from this period. Under either alternative, the U.S. would have to accept a fundamental conceptual change in its trademark laws since under the present U.S. system, a trademark must be used in commerce before it can be registered.

Safeguards included

Although the Committee adopted a three year period with provision for a longer period in special cases and other safeguards are included in the draft such as a provision

permitting states to prohibit the institution of infringement suits in a country until after actual use has occurred in that country.

While the treaty would require a significant change in U.S. law, however, it is believed that it will have a positive effect for U.S. businessmen in that they will not have to concern themselves with establishing a premature actual use of their marks in commerce in order to file for a trademark registration as they do today. In fact, legislation has been pending in the Congress for some time which would permit a trademark application to be filed although not registered, on the basis of a statement of intent-to-use the mark rather than actual use. There is wide support for this legislation since it is felt the law would be more realistic from the standpoint of business needs.

Another important question that remains to be settled is that of whether a provision, commonly referred to as "central attack," should be included in the treaty. To have central attack in the treaty would mean that the cancellation of an international registration in one state would result in cancellation in some or all of the other countries where the international registration is in effect.

The United States and other countries have objected to such extraterritorial effect of a cancellation decision in one country because of substantive differences in law and interpretation from country to country. Further, language differences often create different phonetics or appearances of a mark which could result in an uneven application of the same laws in the various countries.

Central attack

Although the question of central attack had already been considered rather extensively, and most recently by a small working group which met in April of this year, without any agreement as to how to handle the problems arising from differences in law and languages, a number of countries which are presently members of the existing Madrid Agreement continued to express the view at the recent Conference that central attack should be included in the draft treaty. Following a lengthy discussion, WIPO, the Secretariat of the Conference, agreed to convene a working group in September, 1972, to study once again the question of whether a satisfactory provision for central attack can be devised.

The efforts now underway arose from the concern of the U.S. Department of Commerce over the difficulties faced today by the U.S. owner of a trademark in securing protection in foreign countries.

Although there is an international treaty facilitating the registration of trademarks internationally, the Madrid Agreement, the U.S. is not a member of that agreement because some of its basic provisions are incompatible with U.S. law. Thus, a United States trademark owner wishing to secure protection of his mark in foreign countries must normally seek registration on a country-by-country basis, involving preparation of separate applications for each country, translation into various languages, separate filing requirements, varying renewal dates, transfers of money in as many different currencies as are involved, and a host of other procedural and administrative details.

Possible revision

A number of other industrialized countries including Japan, United Kingdom, Canada and the Scandinavian countries are also not members of the existing Madrid Agreement.

For these reasons, the United States proposed that studies be undertaken by the World Intellectual Property Organization (WIPO) with a view to the possible revision of the existing Madrid Agreement to make it more attractive to countries which are not now members. Since the original proposal, the studies have developed more along the lines of a new broader treaty rather than revision of the Madrid Agreement because of the desire of some of the Madrid countries to maintain their existing agreement in effect.

A draft of a Trademark Registration Treaty prepared in 1971 was considered at a meeting of a Committee of Experts in October of that year. The draft treaty recently discussed in Geneva grew from the October 1971 meeting.

The proposed treaty would greatly simplify for U.S. applicants the administrative procedure required for obtaining multi-national registration of trademarks. It would create a simplified system of central filing of application with an International Bureau (under WIPO) to relieve applicants from the burden of filing a multiplicity of separate applications on a country-by-country basis.

Under the present draft, a single applica-

TRADEMARK DELIBERATIONS — *At Geneva, Switzerland, members of the U.S. delegation to a Committee of Experts conference on the International Registration of Marks are seen during one session. Patent Commissioner Robert Gottschalk (left center) headed the U.S. delegation.*

tion could be filed in either English or French and, with the payment of a single fee, would be effective as an application in all those treaty countries designated. The application would be subject to an examination as to formal matters by the International Bureau. Within a few days after receipt, the mark would then be registered in the International Register of Marks and all the relevant data, including the list of goods and/or services, would be promptly published and the national office of each of the designated states selected by the applicant notified.

Time limit

The international registration would then become effective as a national registration in each designated state unless within a certain time limit (15 months was agreed upon) a state refused the national registration of mark. The grounds for refusal are the same grounds as those on which a state could refuse an application filed directly within its national office.

There has been an increasing interest in the TRT since the WIPO study was first proposed by the United States. Thirty-four countries, five inter-governmental organizations, and twenty-two non-governmental organizations participated in the conference.

While other issues and problems remain to be resolved, including the question of fees, it is generally believed by the U.S. Delegation that the treaty will be ready for negotiation at the 1973 Diplomatic Conference in Vienna. However, the issue on the question of central attack could delay the Conference. Its final scheduling will be decided at the next meeting of the Executive Committee of the Paris Union which will be held in September.

Other members of the U.S. delegation to the Geneva conference were: Anthony R. Desimone, Trademark Counsel, Merck & Co., Inc., Rahway, N.J.; Gabriel M. Frayne, Ladis, Perry, Von Gehr, Goldsmith & Deschamps, New York City; and Beverly W. Pattishall, Pattishall, McAuliffe & Hofstetter, Chicago, Ill.

—Patent Office

DOMESTIC BUSINESS REPORT

- Shipbuilding awards top half a billion
- Another step forward for minority firms
- Industry pledges more to pollution control
- Domestic shipping recommendations on record
- Farm productivity, average sales, up

Half-Billion Dollars Boost U.S.-Flag Fleet

Awards of contracts totaling more than half a billion dollars, announced this month by President Nixon, will give the U.S. Merchant Marine its needed "shot in the arm."

Up to July 1, when the announcements of the contract signings were made, shipbuilding contracts for the U.S.-flag fleet under the President's new maritime program totaled $447 million.

The new shipbuilding agreements, which provide for 16 ships to be built in five shipyards across the country, amount to more than $658.3 million, bringing the total sum of monies allocated over the past 20 months by industry and the Federal government to the shipbuilding program to more than $1 billion.

Construction subsidy cost, made through the Maritime Administration on these last five contracts for fiscal year 1972, comes to more than a quarter of a billion dollars —over $280 million.

The new contract awards announced by the President this month include:

- Three 265,000-ton tankers to be built by Bethlehem Steel Corporation at its Sparrows Point, Baltimore, Md., shipyard for M.F.C.-Boston Tankers, Inc. at a total cost of $210.2 million.
- Three 225,000-ton tankers to be built by Seatrain Shipbuilding Corp., at its Brooklyn, N.Y., facilities for Seatrain Lines, Inc., at a total cost of $171.9 million.
- Three 87,000-ton tankers to be built at the San Diego, Calif., shipyard of National Steel & Shipbuilding Co. for Aeron Marine Shipping Co., at a total cost of $83.6 million.
- Four 35,000-ton tankers to be built at Todd Shipyards Corp., shipbuilding facilities at San Pedro, Calif., for Sea Service Tankers, Inc., at a total cost of $79.5 million.
- Three 19,000-ton roll on-roll off freighters to be built by the Bath Iron Works Corp. at its Bath, Me., shipyard for States Steamship Co., at a total cost of $114.1 million.

The Bethlehem Steel Corp. contract to build the huge 265,000-ton tankers for M.F.C.-Boston Tankers, Inc. will produce the largest tankers ever contracted for in the United States.

The three supertankers will also be built in the big shipbuilding basin recently completed at Bethlehem's Sparrows Point, Md., shipyard, constructed in the belief that American-flag tankers will engage in overseas trade within the next few years in competition with the extra-large foreign-flag vessels. This new shipbuilding basin is large enough to accommodate the building of these supertankers and others.

The ships will be built according to a recently announced Bethlehem Steel design. Each will be wider than a football field and longer than three of them, with an overall length of 1100 feet, breadth of 178

feet, depth of 86 feet, draft of 67 feet, cargo capacity of 2,035,000 barrels, shaft horsepower of 35,000 and average speed of 15¼ knots.

The huge tankers will also have the most advanced pollution-control equipment available.

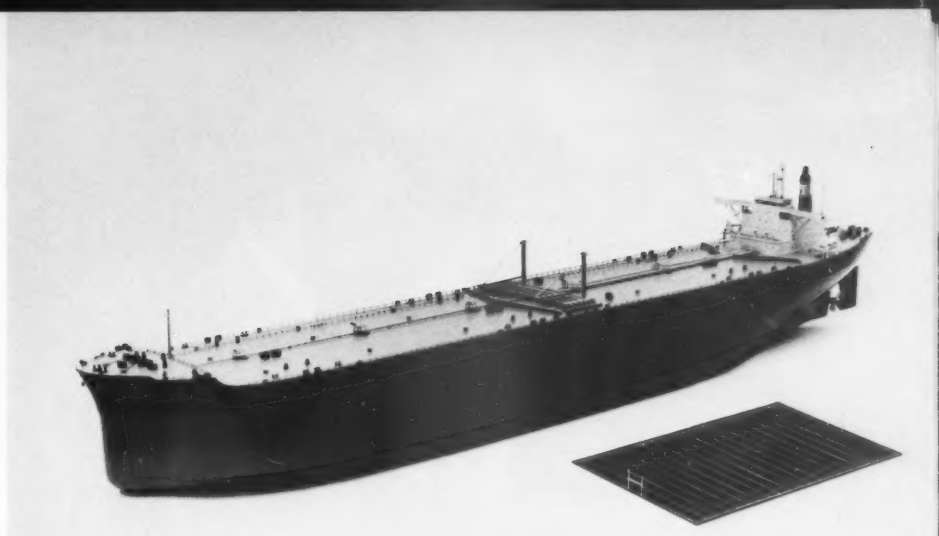
Three other supertankers—each totaling 225,000 deadweight tons —will be built in Brooklyn, N.Y., at the Seatrain Shipbuilding Corp. shipyard.

Supporting the program

In awarding this contract to Seatrain Shipbuilding, Seatrain Lines Inc. is not only supporting the President's maritime program to revitalize the U.S.-flag fleet, but it is also supporting President Nixon's program to help minority-groups throughout the Nation. The tankers will be built by a predominantly black workforce at the yard, the former Brooklyn Navy Yard.

The NASSCO (National Steel & Shipbuilding Co.) contract represents the second bulk vessel contract awarded to that shipyard. The first was announced last year as a $60.9 million contract for the construction of the first two ore-bulk-oil vessels to be built with Federal subsidy and to fly the American flag in foreign trade.

Aeron Marine Shipping Co., which placed the latest order with NASSCO for the three 87,000-dwt tankers is related to the Aries Marine Shipping Co., which ordered the three 80,500-ton OBO carriers from NASSCO in June 1971. The Aries three-way agreement among that company, NASSCO and the Maritime Administration marked the first time in the 36-year history of subsidy aid by the Federal Government that building funds were provided for ore-bulk-oil carriers, and the first time in U.S. shipping history that funds for operating these tankers in foreign trades against foreign competition were approved. The Aeron Marine Shipping Co. tankers are similar to the ones being built for Aries, but larger.



SUPERTANKER—*The model of the 265,000 deadweight ton tanker, designed by Bethlehem Steel Corp., shows what the three tankers of this size ordered for M.F.C.-Boston Tankers, Inc. will look like when completed. A $210.2 million contract, signed by Bethlehem, M.F.C.-Boston Tankers, Inc. and the Maritime Administration, represents 4,800 man-years of shipyard work for Bethlehem's Sparrows Point, Md., shipyard facilities. Federal subsidy on the contract totals $90.6 million.*

The Todd Shipyard-Sea Service Tankers, Inc. building contract is significant because it represents the first new merchant ships to be built in Todd's San Pedro, Calif., shipyard in a decade.

In January this shipyard received a Department of Defense approved contract for the construction of four 25,000-ton tankers at a total price of approximately $66 million for charter to the Navy.

The new subsidy construction contract for U.S.-flag fleet ships—four 35,000-ton tankers—will help boost the economy of this West Coast community. The new contract will provide 2,400 man-years of shipyard work for the yard.

The three 19,000-ton roll on-roll off ships to be built by Bath Iron Works Corp. Bath, Me., facilities, is another first for the maritime program. These ships, to be built for States Steamship Co., will be the largest of this type of vessel constructed in this country.

When delivered these ships will be used by States Steamship Co. in their U.S. Pacific Coast-Far East service. The ships each will measure 684 feet long, and have a draft of 32 feet and a speed of 23 knots.

Roll on-roll off ships have an advantage over conventional freighters, since cargo on these ships can be loaded and discharged using wheeled and tracked vehicles driving on ramps. Not only can these freighters handle regular containers of all sizes, but they are equipped to carry cargo considered difficult to handle; such as, long lengths of lumber and odd-sized cargo that does not generally have container capability.

The five new contracts represent a total of 18,300 man-years of work in the shipyards involved. Besides the 2,400 man-years of work provided by the Sea Service Tankers-Todd contract, Bethlehem Steel's Sparrows Point yard will realize 4,800 man-years of shipyard work, Seatrain Shipbuilding, 5,400, NASSCO, 2,700, and Bath Iron Works, 3,000. These contracts also represent an equivalent number of man-years of work in the ship supply and marine equipment related industries.

—Maritime Administration

FOR EVERY OCCASION—*Mrs. Grace Wiggins (second from left) operator of the new card and gift shop concession opened recently in the Commerce Department in line with President Nixon's program to assist minorities in business, displays some of her studio cards to visitors who attended the opening ceremonies for that shop and a new barber shop in the Commerce Washington, D.C., building.*

New Concessions, $3.2 Million In Small Firm Contracts Increase Minority-Owned Business In D.C.

"One more good step has been made to place more business with minority firms," said Secretary Peterson at dual ceremonies held late last month in the Commerce Department.

The Secretary was presiding at a two-fold presentation: the opening ceremonies for two black-owned concessions located in the Department of Commerce building in Washington, D.C., and the signing of an agreement with the Small Business Administration, under which $3.2 million in Commerce Department contracts for management and technical assistance services to minority-owned businesses will be let to 26 minority consultant firms through the SBA.

The new businesses in the Commerce Department, Commerce Card Corner, operated by Grace Wiggins, and Bobby's Place, a barber shop owned by Robert F. Sumner, bring to nine the number of minority-owned concessions in Federal buildings in the Washington area.

Peterson said at the opening, "We welcome these new businesses to the Department of Commerce and wish Mrs. Wiggins and Mr. Sumner every success.

"Besides being an asset to the Department and convenience to Commerce employees," he added, "these firms are evidence of the Department of Commerce's active participation in President Nixon's minority enterprise program in which the Office of Minority Business Enterprise seeks to involve all Federal agencies."

The Secretary said that the concessions are part of President Nixon's program to increase opportunities for minorities to go into business or to expand existing businesses.

OMBE Director John L. Jenkins commented at the ceremony, "These new shops are a fine example of the teamwork among Federal agencies, financial institutions and the private business sector which has made the minority program successful."

Cooperative effort

Jenkins explained that the businesses were the result of a cooperative' effort among the Department of Commerce, the General Services Administration, and the Small Business Administration, as well as the Mayor's Economic Development Corp. (MEDCO), the National Bank of Washington, and, in the case of the card shop, the Hallmark Card Company.

Jenkins pointed out that there are 66 minority-owned concessions at the present time across the country with an estimated gross sales value of $6.5 million.

Mrs. Wiggins claims her determination is what put her into business. "Everyone kept saying 'no, no,' " she said. "But I kept saying 'yes, yes', and here I am."

Mrs. Wiggins is a former Commerce Department employee who left her job to open the business. She was assisted in developing her business plan by MEDCO, a local business development organization affiliated with OMBE, and the Hallmark Company, which is financing the new business.

She holds a five-year contract with the government which she estimates will gross $40,000 annually. Her husband, William Wiggins, is part owner of the business.

Sumner worked for President Nixon when Mr. Nixon was Vice President of the United States. "One day I bumped into Mr. Nixon with coffee cups in my hands," he said, "and fell down. Mr. Nixon helped me up."

"He's helping me up again, through his program to help minorities enter the free enterprise system of the United States."

Sumner, the new proprietor of Bobby's Place, has operated another barber shop in Washington since 1965. He plans to hire four barbers to fulfill the contract which he expects will have gross earnings of $210,000 over its seven-year term. MEDCO also assisted Sumner in developing his business package which included an SBA-guaranteed loan from the National Bank of Washington.

"More minorities need to know about the technical and management know-how available to them through organizations like MEDCO," he said. "If you look for a loan, naturally if you're a novice, you'll get a 'no.' But if you call on MEDCO, they'll help. They prepared my complete financial package for me."

Sumner's sister, Evelyn Montague, an experienced hair stylist, operates the wig styling and cosmetic portion of the shop which features Super Sumner holding spray, a product invented by Sumner, among various hair and cosmetics products on sale.

A contract has been awarded for a third Commerce concession, an optical shop, which is scheduled to open in the near future. Delmar Nelson, the owner, was represented by a member of his firm, Roger Williams, at the opening.

The concessions were installed as part of the program of the National Task Force on Minority Business Concessions, an interagency group established by Under Secretary of Commerce, James T. Lynn, in his capacity as chairman of the Interagency Committee on Minority Enterprise. Membership on the Task Force consists of representatives from every Federal agency which is responsible for managing real property. Arthur F. Sampson, acting administrator of GSA, is chairman.

After a Federal agency identifies a concession site in one of its installations, local business development organizations work in conjunction with OMBE to locate a minority firm to fill it. GSA and SBA negotiate a special Section 8(a) contract with the concessionaire who pays GSA, the manager of Federal buildings, a small percentage of his annual gross income as rent.

Other concessions

Besides a record shop and card shop at the Pentagon, other minority-owned concessions now operating in Federal Buildings in the Washington area include two dry cleaners, one in the Regional Office Building, 7th & D Streets, SW., the other in the GSA building at 19th & F Streets, NW., two gift shops, one in Building #159, Washington Navy Yard, and the other in the Forrestal Building, and a shoe repair shop at Federal Building 2 in Arlington, Va.

The second ceremony, that of the awarding of the $3.2 million in Commerce Department contracts, was signed by Secretary Peterson, and SBA Deputy Administrator Anthony G. Chase. SBA will let the 26 awards under terms of Section 8(a) of the Small Business Act.

Chase said that the contracts are part of the $100 million worth of Federal procurement contracts the SBA will award to minority-owned firms during fiscal year 1972.

In signing the agreement, Secretary Peterson said, "These contracts, which will be awarded as part of the program of the Department's Office of Minority Business Enterprise, show that the Department of Commerce is taking a lead role in the effort to place more Federal contracts with minority-owned firms, an effort it has encouraged among other Federal agencies through the OMBE program.

On hand for the signing were representatives of some of the minority management consultant firms who will be recipients of the contracts.

Also present for the ceremonies were Ted Trimmer, Assistant Administrator of GSA, Arthur McZier, Assistant Administrator for Minority Enterprise for SBA, and Robert Brown, Special Assistant to President Nixon.

Jenkins noted that in committing over $3 million in contracts to minority firms, "Secretary Peterson has shown that the Department of Commerce not only supports the OMBE program, but is actively involved in contributing to its success." —*OMBE*

WIG WONDERS — *Marcia Harrison (left), Program Officer with the Commerce Department's Government Programs, looks over an afro-type wig, available for sale in the wig and cosmetic shop that is part of Bobby's Place, the new barber shop concession in Commerce. Evelyn Montague, operator, looks on.*

A HAIR CUT—*Secretary Peterson sits in one of the barber chairs at the opening ceremonies of Bobby's Place, as the new shop proprietor, Robert F. Sumner, gets ready to give the Secretary a hair cut. The barber shop is one of two minority-owned concessions opened at Commerce.*

STREAM CLEANER—*Skimming industrial debris and waste from streams is made simple with this inexpensive dam-like structure, developed jointly by Firestone and an Akron drainage firm. This photo shows the dirty water on the right before it reaches the skimmer and the clear water on the other side. Firestone Tire & Rubber Company is among the industries pledging further funds for pollution abatement.*

Industry Pledges Millions More To Eliminate Pollution Problems

Industry, having already committed millions of dollars for environmental control, is pledging millions more to fight pollution, according to the National Industrial Pollution Control Council.

NIPCC, according to John G. Stringer, the Council's Public Information Director, is preparing another commitment book to be released late this year that will list these further specific industry actions for pollution control, at named plant locations, with estimates of the investments being made, and, in many instances, stated target dates for completion of these projects.

Stringer listed several of these new commitments in an address last month before the Public Relations Society of America in Charlotte, N.C., at a one-day public relations conference.

He noted that this new commitment book will be the third such publication released by NIPCC, but, that to the best of his knowledge "the previous commitments and pollution control action projects by NIPCC members remain unknown to the general public."

Public doesn't know

According to the NIPCC public affairs official, a recent Gallup Poll for the National Wildlife Foundation found that 90 percent of the public had no appreciable idea of the costs involved in environmental control.

"Two thirds of the public," he said, "did not consider itself a part of the pollution problem and less than half of those questioned were willing to pay even part of the bill for cleaning up the environment."

Stringer pointed out that business, identified with success, is becoming America's new whipping boy. And he explained that business is partially to blame, because it created the myth that it is capable of doing anything, far beyond either practicality or reality.

"But what is often forgotten," he added, "is that the businessman is also a consumer, a voter, and more often than not a member of Middle America. He shares our frustrations as well as our high taxes; he shares our hopes and desires; and he certainly is seeking a cleaner, more wholesome environment."

More than 40 reports

NIPCC, in less than two years, has forwarded to President Nixon —who created the Council in 1970 as both an advisory body and as a means of stimulating industry leadership in pollution cleanup— more than 40 reports surveying the pollution control problems of specific industries. The Council has also made hundreds of detailed suggestions and recommendations for ways to speed up or improve both Government and industry environmental policies and programs.

There are 63 chief executives of major industries throughout the country serving on the Council and more than 150 others who serve on its sub-councils and special working groups. The Council is chaired by Bert S. Cross of 3M, who attended the international environmental conference in Stockholm last month as the industry representative for the U.S. Government.

Cross recently told a university group in Washington, D.C. that public understanding is a prerequisite to achieving solutions to the environmental challenge. "Public understanding," he said, "will mean the difference between the success we all want and the failure we are trying to avoid."

The Council received a letter from one person from Harrisville, Pa., who does understand. This letter said, "I want to commend you on what industry has done to clean up the skies and streams such as the United States chemical industry spending $600 million on pollution abatement in 1970, the iron and steel industry spending more

than $1 billion on pollution control, and the electric-power industries of the United States spending two thirds of a billion dollars on curbing pollution.

"Until I read an article stating these figures I did not realize how much money is being spent on pollution control by industries. I think it is wonderful that so much is being done about pollution control.

"I also realize that industries don't cause all the pollution and that people do cause a great deal of it. Again I want to thank you for all that is being done."

The new actions being pledged by industry, listed by Stringer at the conference, include:

American Motors, Detroit, Michigan: From June to December 1972, American Motors commitment is $518,000 for new environmental projects. Signed by President William V. Luneberg, the commitment specifies the construction of cooling towers to eliminate the discharge of air compressor cooling water into the Ottawa River, Toledo, Ohio; the installation of submerged fill storage facilities for solvents and liquid fuels; a de-alkalizing system to eliminate the acid neutralization now required in the Milwaukee power house water treatment process; and the conversion of four boilers from coal-fired to gas-fired (with fuel oil standby facilities) at the American Motors Main Plant at Kenosha, Wisconsin.

These commitments are in addition to the projects costing $492,600 completed between April and December of last year.

The Goodyear Tire & Rubber Company, Akron, Ohio: Russ DeYoung, Chairman of the Board, lists 42 projects to be completed by October 1972. The cost of the Goodyear Tire & Rubber Company's program for Environmental Control is $7,280,856. Last year's total was $4,894,756.

The projects, their locations, date of completion, and costs are part of the public record.

Ideal Basic Industries, Inc., Denver, Colorado: It is estimated that this company will spend $8,815,000 in 1972 and $5,300,000 in 1973 for environmental control related projects. Two years ago, Ideal closed two cement plants because of environmental problems. However, one of the two plants was reopened due to the serious economic impact its closing would have on the surrounding community.

The plant continues to operate under air quality regulation variances while studies are continued to determine size, location and economic feasibility of an entirely new plant in the area.

Seaboard Coast Line Railroad Company, Jacksonville, Florida: Air and water pollution controls as well as system shop and engine house improvements represent a $1,472,000 expenditure. For the last half of 1972 and for the year of 1973, Seaboard Coast Line Railroad Company anticipates expenditures of $1,432,200 in its pollution program.

North American Rockwell, Pittsburgh, Pa.: All of North American Rockwell's environmental pollution control commitments set forth in its previous reports have been completed. Cost: $484,000. New efforts include a $250,000 gas stream cleaning system to be completed and in service this summer.

In the meantime, an extensive study of all plant operations is being made to identify all existing and potential industrial waste emissions and control requirements with regard to Federal, state, and local regulatory requirements. This study is expected to be completed the latter part of 1972.

The Firestone Tire & Rubber Company, Akron, Ohio: Environmental Improvement Projects were first reported to NIPCC on December 1, 1970, and updated last August. Expenditures for that period have been $8,569,879. Projects funded since August 1971 amount to $7,220,198. Cost and completion dates are public record.

Thirty-Four Federal Offices Will Give Flood Victims Help

Thirty-four emergency offices were placed in operation by the Small Business Administration to bring financial help to flood victims in Florida, Virginia, Maryland, Pennsylvania and New York.

"We are responding to President Nixon's call for massive aid to these unfortunate people by organizing the largest disaster task force in the Agency's history in record time," said Thomas S. Kleppe, SBA Administrator.

The field offices will serve 106 cities and counties designated by SBA as the first in which homeowners and businessmen may receive long-term, low-interest federal loans. Additional cities and counties are expected to be declared disaster areas as SBA teams survey the damage in the wake of Hurricane Agnes.

Cities and counties declared to date are eligible for a forgiveness on SBA loans. Borrowers must repay the first $500 of a loan and any amount borrowed over $3,000. Repayment is waived on amounts borrowed between $500 and $3,000.

The emergency offices open today are:

Florida — Jacksonville, Merritt Island, Carrabelle, Sarasota, Apalachicola, St. Petersburg, Key West, Clearwater, Okeechobee, Tampa.

Virginia — Richmond, Waynesboro, Covington, Manassas, Salem, Alexandria, Fredericksburg, Lynchburg.

Maryland — Baltimore, Ellicott City, Washington, D.C. (serving Montgomery and Prince Georges counties).

Pennsylvania — Harrisburg, Wilkes-Barre, Williamsport, Philadelphia, Reading, York, Sunbury, Lewistown, Pottsville.

New York — Elmira, Hornell, Olean, Corning. —*SBA*

Goal Of Domestic Shipping Industry—Improvement, Expansion, Updating

A long, uphill pull on the road to public understanding needs to be undertaken by the domestic shipping industry in the United States, if it hopes to achieve its objectives, according to Dudley W. Burchard, vice president of the Matson Navigation Company.

Burchard voiced these sentiments and added that right now the domestic shipping industry is at the bottom of the totem pole, at a recent meeting between a committee from this industry and the Maritime Administration in Washington, D.C.

The domestic shipping executive is a member of a special committee which presented definite suggestions for the expansion, improvement and modernization of that industry that resulted from the National Planning Conference on Domestic Shipping held April 30 to May 4 in St. Louis, Mo.

The Conference brought to light a broad range of needed domestic shipping industry reforms, which were presented by the panel from that industry at a briefing in Washington, D.C. early last month. The briefing brought industry leaders and government officials up-to-date on the Maritime Administration sponsored conference, on its objectives and the proposals emanating from it.

NEW DOMESTIC SHIP—*The MV STEWART J. CORT, new giant of the Great Lakes shipping lanes, carries a cargo of 52,000 gross tons of iron ore pellets at normal water levels. The 1,000-foot-long vessel is self-unloading.*

The briefing session was opened by Robert J. Blackwell, Acting Assistant Secretary of Commerce for Maritime Affairs, who reviewed the work of the conference and introduced Secretary of Commerce Peterson to the attendees.

The Secretary, in welcoming those present, spoke of the importance of the role of domestic shipping today, and the part that industry will have in helping reverse the change that has occurred in the U.S. position in foreign trade.

Peterson stressed the fact that in the last decade the Nation's exports have increased substantially less than those of most of its competitors, citing the examples of Japan and West Germany, and pointed out the lagging growth of productivity in the United States and the need for greater emphasis on technological development as a means of improving the U.S. trade position.

The Secretary said the present decade will be the most competitive era the Nation has ever faced, and the "most exciting."

Blackwell in summing up the work of the conference, said, "From these meetings, it became clear that the most expeditious method of developing a long-range program to assist the industry would be to get the various interests in the industry together to map out proposals for such an undertaking and develop an order of priorities for carrying them forward. Thus, the idea for the National Planning Conference on Domestic Shipping was conceived.

"Held in St. Louis during the first week of May, the conference brought together nearly 200 leading representatives from all segments of the industry, including management and labor, to accomplish three specific objectives:

"First, to review and analyze the current status of the industry and to identify the problems that inhibit the industry from maximizing its contributions to our national transportation system.

"Second, to outline a five-year program which Maritime can undertake jointly with the industry to resolve these problems.

"Third," he concluded, "to recommend specific actions that the agency can take immediately to assist the industry."

Panel members

Recommendations for improvements in the domestic shipping industry were presented to the Maritime Administration by the Panel Co-Chairmen from the industry, including Burchard, who is co-chairman of the conference panel on Operations and Facilities; Adrian S. Hooper, President, Interstate Oil Transport Company, co-chairman, Finance and Insurance; John W. McConnell, Jr., Vice President, Sea-Land Service, Inc., co-chairman, Legislation and Regulation; and John D. Geary, Vice President, The Ohio River Company, co-chairman, Research and Development.

The panel on Operations and Facilities included in its recommendations the greater development of marketing data, improvement of communications capability for domestic shipping, implementation of an American-flag feeder system to serve coastal, Great Lakes, and inland ports from line-haul vessels in the foreign and domestic trades, and increased crew training.

Burchard, in presenting the recommendations, said a subpanel on marketing "emphasized the vital

need for improved market intelligence," and looked forward to the further development and improvement of the Maritime Administration's data bank and related market intelligence activities.

He questioned whether any of the other proposals could be achieved "without the market information network required to assess what and where that market is and what its demands on existing or potential hardware are going to be . . ."

He stressed the need for improvement in communication, particularly on inland waterways, and said this involved "the whole network and context of waterway communication," including vessel to bridge, vessel to vessel, and better radio systems.

Finance and insurance

The panel on Finance and Insurance included in its recommendations simplification of financial reporting requirements under Title XI of the Merchant Marine Act, support for pending legislation to broaden eligibility provisions for Title XI mortgage and loan insurance, development of statistical information on industry loss rates, and a survey of capital requirements needed by the industry over the next five years.

Hooper, in presenting the recommendations, said the reporting system under Title XI needs to be overhauled and simplified, and that the present forms "are so cumbersome and so detailed" that they require an inordinate amount of time for the vessel operator and the Maritime Administration staff.

He said the industry was urging the Maritime Administration to develop an alternative simplified procedure and standard forms for Title XI mortgage guarantee insurance. At present, he commented, the paper work required for Title XI applications "is extremely costly to the Government and industry."

DOMESTIC SHIPPING CHANGES—*Robert J. Blackwell (right), Acting Assistant Secretary of Commerce for Maritime Affairs, introduces the panel co-chairman selected by the industry to review the recommendations from a MarAd conference with interested officials held in June. The domestic industry panel includes (left to right) John W. McConnell, Jr., vice president, Sea-Land Service, Adrian S. Hooper, president, Interstate Oil Transport Co., Dudley W. Burchard, vice president, Matson Navigation Co., and John D. Geary, vice president, The Ohio River Co.*

The panel on Legislation and Regulation emphasized more direct cooperation among Government agencies. Its recommendations included the following:

► The Maritime Administration should work with the Environmental Protection Agency (EPA) to insure reasonable standards in the field of environmental regulation.

► The Maritime Administration should actively promote waterborne commercial interests before Congress and the Government regulatory agencies.

► The Maritime Administration should work toward improving the regulatory process with respect to water transportation.

► The Maritime Administration should coordinate ocean-inland water carriers to remove constraints on continued development of the LASH-SEABEE system.

► An increase in the capacity of the American Hull Syndicate to cope with the expanding insurance needs of the domestic shipping industry.

The panel on Research and Development discussed the needs of the industry with respect to improvement of marine equipment. The panel stressed the need for assistance in constructing a new Great Lakes fleet, innovation in hull structures and propulsion equipment, extension of the navigation season on the Great Lakes and northern rivers, research in pollution and noise control, accident prevention, traffic control, and the necessity for planning for the vast growth projected for the industry.

Geary, in presenting the recommendations, said the conclusions of the panel contained 42 program elements and would involve an expenditure of $25,245,000.

The St. Louis conference was initiated by the Maritime Administration to review current practices and problems and to formulate new policies to be undertaken by the Commerce agency aimed at improving the industry's future growth potential.

—Maritime Administration

Farm Productivity, Sales Receipts On Way Up, Says Latest Report

Gross sales per farm in the United States increased almost 50 percent, from $11,176 to $16,705, in the five-year period from 1964 to 1969. There has been a strong trend toward fewer and larger farms for many years.

The Bureau of the Census reported the figures from its 1969 Census of Agriculture. The analysis of the farm data also showed a sharp drop in the percentage of tenant farmers.

Among the farms with $2,500 or more in annual sales, the average sales per farm rose from $18,710 in 1964 to $25,679 in 1969, an increase of 37 percent.

Farms with $2,500 or more in yearly sales accounted for 1,733,683 out of 2,730,250 of those counted in the census. Farms with less than $2,500 in yearly sales are further divided into those classed as retirement farms, part time operations and those with relatively insignificant sales of farm products.

The 1969 report shows that farms with more than $2,500 in gross sales accounted for 97 percent of the gross sales for all farms of $45.6 billion, up from $35.3 billion five years earlier. They also accounted for 96 percent of production expenditures, 97 percent of hired farm labor, and 87 percent of the $206.8 billion invested in farm buildings and land.

Farms with $40,000 or more in gross sales increased in number from 141,914 to 221,690 between 1964 and 1969, according to the report. Farms with sales between $20,000 and $30,000 rose from 259,898 to 330,992.

All other classes of farms dropped in number, with the greatest loss among farms with less than $2,500 income.

(The population of U.S. farms in April 1971 was estimated to be about 9.4 million, according to an annual survey conducted by the Census Bureau and the Economic Research Service of the Department of Agriculture.)

(About one person in 22 had a farm residence in 1971, compared with the one in three living on a farm in 1916, when the U.S. farm population reached its historic peak of 32.5 million.)

Average farm or ranch size also increased substantially between censuses—to 389 acres in 1969, 38 acres larger than in 1964.

Homes elsewhere

The number of farmers not living on the farms they operated also increased from 291,000 in 1964 to 458,000 in 1969. Also higher over the five year period was the number of farmers and ranchers working off their farms, especially those who worked more than 100 days.

The proportion of full owners among all farm operators rose to 62 percent in 1969 from 58 percent in 1964, while the percentage of tenant-operated farms dropped from 17.1 to 12.9 percent.

The 87,383 Negro farm operators in 1969 represented a reduction of almost 56 percent from the 199,952 counted in 1964. The percentage of tenancy for black operators went down from 43 to 20 percent in 1969 and their ratio of full ownership went from 39 percent in 1964 to 62 percent in 1969.

To raise the crops and livestock for sale in 1969, ranchers and farmers spent $37.6 billion in production costs, mostly for livestock and feeds, although investments in machinery, labor, fertilizer and other items were included.

Other highlights include:

- Largest gross sales from ranches and farms in 1969 came from livestock and livestock products—$28.6 billion, nearly $10 billion above 1964 sales.
- Only apples among tree fruits had a larger 1969 harvest than in 1964.
- Dollar sales of flower and vegetable seeds and vegetable

FARM SALES UP—*Gross sales on U.S. farms averaged $16,705 in 1969, an increase over the previous farm census year, 1964, when the figure was $11,176. This dairy farmer near Walkersville, Md., is shown with cows of his Holstein-Friesian herd.*

plants amounted to only about half of those of five years earlier.

- Only tobacco, cotton, rye, alfalfa, grass silage, and field seeds of major crops in 1969, ran below 1964 quantities harvested.
- Strawberries, watermelons, and snap beans were below 1964 production levels; all other major fruit and vegetable harvests were greater in 1969 than in 1964.
- Farmers earned nearly $50 million from recreational services; in 1964 the total was $40.7 million. They also got nearly $510 million for customwork and other agricultural services.
- Although some specialized crop or livestock enterprises earned high gross returns, none came close to the $59 million earned by 474 operators (an average of $124 thousand each) for raising mushrooms.

The 1969 United States Census of Agriculture, is available at 25 cents each from the Bureau of the Census, Washington, D.C. 20233.

—Census Bureau

Note For Federal Contractors

Executive Order 11598, which became effective Sept. 24, 1971, requires Federal contractors and first-tier subcontractors to list job openings with the United States Employment Service.

The primary purpose of this Executive Order is to expand the job opportunities that the Employment Service can make available to Viet-Nam-era veterans.

Business firms that are affected by this directive can make a significant contribution to the Jobs of Veterans Program through voluntary support and implementation of the order's specifications.

Full details of the Executive Order can be obtained by contacting the nearest Employment Service or Regional Manpower Administration office.

Calendar For Businessmen

July 14—Sheboygan, Wis., — Federal Procurement Business Opportunity Conference. For information, Frederic A. Seefeldt, Home Secretary for U.S. Rep. William A. Steiger, 201 Post Office Building, Oshkosh, Wis., 54901. Phone: 414-231-6333.

July 17—Stevens Point, Wis.— Business Development Conference at University Center Building, University of Wisconsin. For information, Bill Vickerstaff, Assistant to Chancellor, 2100 Main St., Stevens Point, Wis. Phone: 715-346-2123.

July 17—Milwaukee — American Society of Civil Engineers Meeting. Armour S. Armstrong, Chief, Maritime's Office of Ports and Intermodal Systems, will speak.

Aug. 2-4—Morgantown, W. Va.— First West Virginia Conference on Coal Mine Electrotechnology. For information, Dr. M. D. Aldridge, Conference Chairman, College of Engineering, West Virginia University, Morgantown, 26506.

Aug. 17—York, Pa.—Business Development Conference at York College of Pennsylvania. For information, Carl Neu, Executive Vice President, York Area Chamber of Commerce, 13 E. Market St., York, Pa. 17401. Phone: 717-854-3814.

Sept. 23-28—Minneapolis, Minn.— American Public Works Association annual convention. For information, R. D. Bugher, executive director, APWA, 1313 E. 60th St., Chicago, 60637.

Ship Design Improvements Reduce Vessel Cost

Nearly 200 design improvements that could reduce the price of merchant ships built in the United States by as much as 10 percent are identified in a research report released by the Maritime Administration.

"Ship Design Improvement Project," a research study produced for Maritime by the Newport News Shipbuilding and Dry Dock, listed 177 "realistic improvements" which, if implemented, could significantly reduce the cost of constructing ore-bulk-oil carriers, containerships, barge carriers, and general purpose cargo ships.

Cost reductions resulting from the design improvements ranged from as much as $3.1 million for a $33 million ore-bulk-oil vessel—a 9.5 percent savings—to approximately $2.8 million for a $40 million barge carrier, a 7.1 percent savings.

Design improvements, according to Robert J. Blackwell, Acting Assistant Secretary of Commerce for Maritime Affairs, fell into two broad categories. Seventy percent were in the category which does not require action by regulatory groups and thus could be implemented immediately; and the remainder in the category which requires changes in existing rules of the U.S. Coast Guard, the American Bureau of Shipping, or other regulatory agencies.

—Maritime Administration

Ombudsman For Business

Businessmen who need assistance in their dealings with the Federal Government now have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints—the Commerce Department Ombudsman for Business.

All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary, U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.

SCIENCE & TECHNOLOGY REPORT

- Sound employed in Colorado tests to observe pollution
- Flammability training sessions set
- Undersea study to probe pollutants
- Five nations seek minerals in submerged mountains
- Patents of special interest

Cryogenic Program To Develop Industry

A Federal program to develop competitive new industry through the application of supercold cryogenic technology as a superconductor is expected to be undertaken under the leadership of the Commerce Department in the near future.

The President's FY73 budget contains a request for $1 million for the first year's program planning and definition phase of an eventual $40 million program to help the electrical industry find better and cheaper means of generating electricity. The National Bureau of Standards will manage the program for the Commerce Department.

A Cryoelectronics Section was established within the Cryogenics Division of the National Bureau of Standards at its Boulder, Colo., laboratories in 1969 representing the fruition of a half-century of fundamental explorations in this field at the Bureau of Standards.

Specifically, this program, in cooperation with industry, recognized research institutes, the Atomic Energy Commission, and the National Science Foundation, would prove the feasibility of making a multi-million watt electrical generator and motor system which takes advantage of superconductors.

Greater efficiency

Such an electrical generator is expected to operate with greater efficiency than present generators. A one percent increase in efficiency would mean that 20 million tons of coal per year could be saved. It would also mean a $4 million reduction in capital investment per generator.

Principal advantage, however, promises to be a marked reduction in weight and size which would permit the construction, assembly and practical operation of much larger capacity motors and generators than heretofore possible. Not only economies of scale would be achieved, perhaps a 15 to 20 percent reduction in the cost per kilowatt capacity, but also economies in use of materials.

Intent of the government's program would be to use Federal seed money in industry to stimulate industrial investment in applying this relatively new advanced technology in the well-established electric industry. Commerce Secretary Peterson, in his FY 1973 budget request to the Congress, supports a National Bureau of Standard proposal to promote and catalyze an industrial program for development of the next generation of multi-megawatt electric generators and motors.

A task force is to be formed by Commerce of representatives of the National Aeronautics and

SUPERCOLD POWER—*With business, industry and the nation's cities demanding increasing amounts of electric power each year, the answer may lie in underground cryogenic power cables such as this experimental aluminum cable tested at General Electric Research and Development Center, Schenectady, N.Y. Chilled to a supercold 320 degrees F. below zero, this cable has successfully withstood up to 435,000 volts of electricity during experiments. First tests of this system climax a three-year study of using supercold cables to transmit huge blocks of power into congested urban areas. GE researchers (left to right) Dr. Brian C. Belanger, Dr. Michael J. Jefferies, and Stephen H. Minnich examine the cable following several days of sustained testing.*

Space Administration, the Atomic Energy Commission and the Departments of Defense, Transportation and Interior to coordinate the planning action. Similar steps are planned among the industrial, university and professional communities to assure an effective approach on a national scale.

The phenomenon of superconductivity is described by Bascom W. Birmingham, Deputy Director of the Institute for Basic Standards of Commerce's National Bureau of Standards, "as the absence of electrical resistance in certain materials that are maintained below a characteristic temperature, electrical current, and magnetic field."

Cryogenics has long been under experimental development. But in recent years, industry throughout the world has been paying more attention to its possibilities. General Electric and Westinghouse have been two industrial leaders in this country experimenting with cryogenics as a means of employing its superconductivity characteristics in electric power generation.

Studies conducted at General Electric Research and Development Center at Schenectady, N.Y., indicate that electric utilities could realize a savings of several million dollars a year with the development of superconductive generators, transformers and transmission lines, while, at the same time, providing the expanding urban centers of the nation with all the electrical power needed.

A three-year, $1.05 million General Electric research project financed by the Edison Electric Institute, Tennessee Valley Authority, and the American Public Power Association, under the operation of the Electric Research Council, has been investigating the technical and economic feasibility of cryogenic underground cable.

Westinghouse Research Laboratories at Pittsburgh has built and is presently testing the world's largest superconducting turbogenerator which operates at −452 degrees F. Tests have been run to 5 million-volt-amperes (MVA) at 3,600 RPM. The company expects that this type of generator will be the answer for central city generators to meet the heavy electrical demands of the future.

Such utilization of cryogenics could:

- Contribute toward solving the national energy crisis.
- Develop radically new equipment and new products for export.
- Stimulate industrial growth and perhaps whole new industries.
- Utilize existing U.S. expertise and maintain technical leadership.
- Employ highly trained technical personnel.

Through its atomic energy and space program, this country leads the world in the basic scientific research that underlies cryogenic technology and in feasibility studies of various technological applications. In the development of actual prototype hardware, however, the

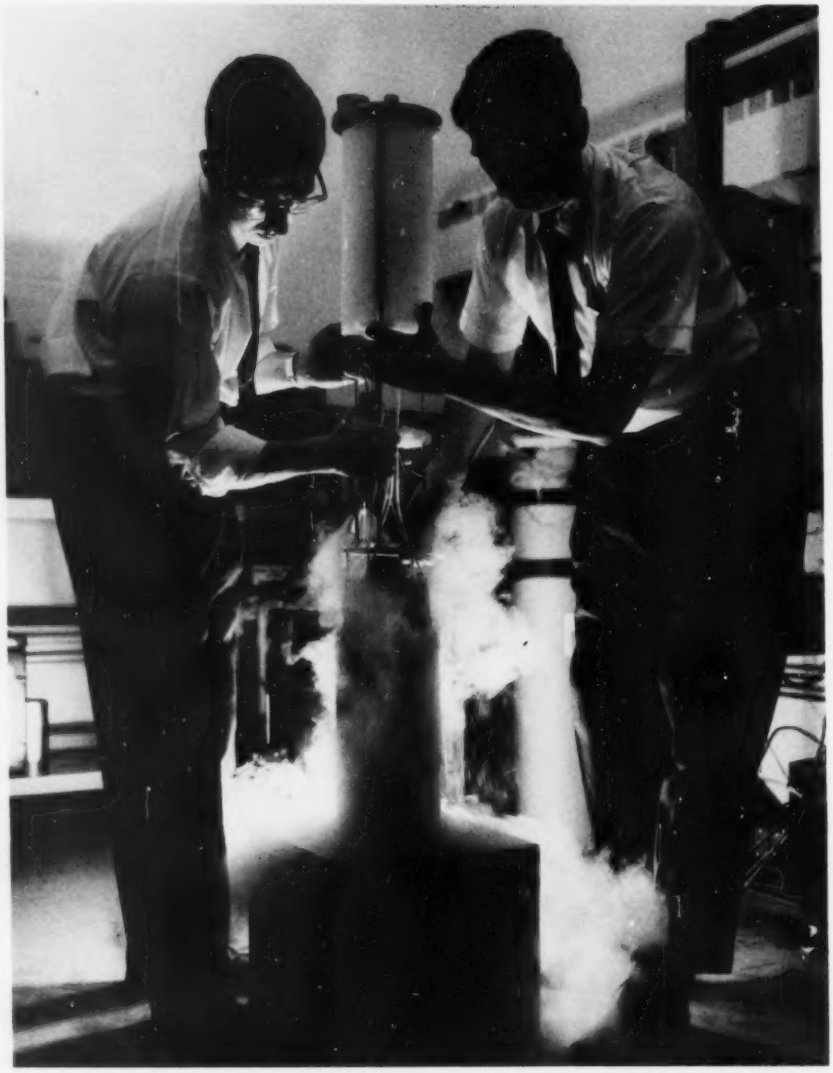
U.S. faces the danger of being outdistanced by its principal economic competitors. The Japanese government is totally funding a three million watt generator for the electrolysis of copper. The British government has already built a 3,250 HP motor. The French government is providing two-thirds of the support for various superconducting motors and transmission lines. The German government is providing 50 percent of the support of a program to build a superconducting transmission line.

Total U.S. government effort for superconductivity this year is estimated at about $10 million, almost none of which is directed toward commercial applications.

Large blocks

A Brookhaven National Laboratory study recently completed for the National Science Foundation on problems to be solved in applying the phenomenon of superconductivity to the design of systems for moving very large blocks of electrical power underground, foresees an indication of the growth in demand for electric power in the next two decades requiring underground transmission circuits to rise from the present average level of several hundred megawatts to about 2,000 MW. If interties between regional networks, for example, between TVA and the adjacent American Electric Power System, are placed underground, then capacities of more than 7,000 MW will be needed before the end of the century. By comparison, the present load of New York City is 10,000 MW.

While capable of carrying large amounts of power, superconducting cables cannot compete economically at lower power levels because of the fixed cost of refrigerators and dewars. At levels that are about the ceiling for conventional technologies, the costs become comparable. As this power level rises, the cost of each megawatt transmitted per mile drops dramatically. If superconducting cables become fairly common, a whole new industry will have to be established to produce the miles of vacuum-insulated containers to carry the cable.



SUPERCONDUCTING MAGNET—*At Westinghouse Electric Corporation's cryogenic systems department in Pittsburgh, a superconducting magnet is precooled in liquid nitrogen before being immersed in liquid helium at a temperature near zero. Westinghouse has long been active in the cryogenic field trying to find a means of employing the superconductivity characteristics of ultra cold in electric power generation.*

Costs of such cable are considerably higher than overhead power lines of comparable power capability located in the open countryside. Near urban areas, however, the rapidly rising cost of right-of-way greatly reduces the differential. Thus, it is expected that superconducting cables will be used first in the large urban and metropolitan areas where the nation's energy crisis is most severe.

Environmental pressures against the use of overhead lines near well-traveled highways and in areas of scenic beauty are rising. Conventional cables have technical limitations of 10 to 30-mile links underground, thus making them incapable of supplanting the vast networks of existing overhead lines, even if the money were available. Superconducting cables could go a long way toward removing this barrier.

—*National Bureau of Standards*

Sound Employed In Colorado Tests To Observe, Forecast Air Pollution

An acoustic echo sounder is being tested in an unusual way by scientists of Commerce's National Oceanic and Atmospheric Administration in a system designed to modernize the observing and forecasting of air pollution conditions through the use of sound.

Vivid, continuous pictures of the critical lower portions of the atmosphere are being painted using the sounder. It enables them to see with unprecedented accuracy the height and undulations of the atmospheric inversion, a region of cold air topped by a warm layer that traps and concentrates pollutants.

Using this data together with conventional meteorological methods, local authorities may be able to improve their air pollution control warnings and decisions.

The NOAA scientists hope that the acoustic sounder can be used to enhance the accuracy of pollution prediction and to help recognize the onset of severe pollution episodes, perhaps as far ahead as the previous afternoon.

Directed by Dr. Freeman F. Hall, Jr., of NOAA's Wave Propagation Laboratory at Boulder, Colorado, the experiment is being carried out in Denver at a site provided by the city to NOAA's National Weather Service.

Meteorologists of the Weather Service and local, regional, and state air pollution control offices have displayed considerable interest in the outcome of the project.

Remote sensing

"If this remote sensing technique proves feasible," says Leonard Dobler of the Denver Air Pollution Control Office, "it could be extremely valuable in helping us decide what kinds of controls to put on pollution sources, such as motor vehicles and coal-burning power plants."

The acoustic sounding technique is based on the fact that the propagation of sound waves depend on compression and rarefaction of air molecules. Thus, the condition of the atmosphere affects the transmission of sound as much as a million times more strongly than it affects the transmission of meteorological radar waves.

The acoustic sounder is a relatively simple instrument consisting of a horn-shaped loudspeaker/microphone that sends pulses of sound into the atmosphere. These high-pitch "pings" bounce off heated blobs of air, and some of the sound energy returns to the microphone. Recorded on a moving strip chart, the intensity variations of such backscattered sound continuously show the temperature structure of the lower 1,500 feet of the atmosphere as it flows above and past the sounder.

Balloon radiosondes

The experimental sounder is being used in conjunction with balloon-borne radiosondes. The Weather Service launches two slow-ascent radiosondes a day to monitor the inversion height up to 10,000 feet.

Dr. Hall points out that at present acoustic sounding cannot replace the ascending radiosonde because the latter instrument observes temperature, humidity, and wind, all of them critical in air pollution control work. The acoustic device observes the thermal structure of the lower atmosphere, but not temperature itself. What it does, in contrast to the conventional radiosonde, is continuously monitor motions as well as the thermal structure of the inversion. This can help meteorologists to observe the formation of inversions, see the development of instabilities, and forecast inversion breakup.

Noise, outgoing and incoming, is a problem Dr. Hall believes has been solved. The antenna design allows the sound to be transmitted essentially as a beam to minimize the escape of annoying "pings" into the neighborhood around the instrument as well as to assure strong echo returns from the lower atmosphere.

Test sounder

The test sounder was deliberately placed alongside a busy interstate highway to determine whether its design was sufficient to block out interfering noises. According to the NOAA research meteorologist, the sound absorbers have been effective, although major noise sources, such as aircraft and large trucks, are exceptions. Actually, the fact that the major noises are loud makes them relatively easy to recognize on the recording strips, and thus they can be eliminated in interpreting data on inversions.

"Eventually, we hope to use the acoustic sounder for reading the temperature itself, for observing the temperature profile of the inversion, and for mapping the lower atmosphere's humidity structure," says Dr. Hall. *—NOAA*

Flammability Training Session Dates Are Set

Responding to the great interest evidenced by the children's sleepwear trade, fiber producers and manufacturers, thread manufacturers, chemical suppliers and laboratory technicians, the Office of Flammable Fabrics of Commerce's National Bureau of Standards has scheduled day-long training sessions over the next three months on the use of the test method and apparatus specified in the flammability standard for children's sleepwear.

Acting Director of the Bureau, Dr. Lawrence Kushner, said the sessions would take place July 20, August 18, September 22 and Octo-

ber 20. The standard takes effect July 29.

Attendance will be limited to about 15 participants in order to assure that each trainee can be given individual attention. Each session will take a full day with lectures and demonstrations, discussions and questions, and supervised operation of the apparatus.

Training sessions will take place at the Bureau's Gaithersburg, Md., headquarters. Applications will be honored on a first-come/first-served basis. Successful applicants will be notified and given further details.

Applications should be addressed to: Dr. James Sharman or James V. Ryan, Office of Flammable Fabrics, National Bureau of Standards, Washington, D.C. 20234.

Undersea Study To Probe Pollutants' Route Through Deep Valley Canyons

Marine geologists and biologists of Commerce's National Oceanic and Atmospheric Administration are studying the undersea deep valley canyons off the New York and New Jersey coasts to determine whether sinkable pollutants and sediment move through the canyons from the continental shelf to the deep ocean.

Other Federal, industrial and academic scientists are participating with NOAA in the studies which stretch from the New York City dump site where the city disposes of its sludge off Sandy Hook, N.J., out to the head of the Hudson Canyon and down to the head of the Wilmington Canyon off Atlantic City, N.J.

The Navy's deep diving submersible *Alvin*, operated by Woods Hole Oceanographic Institution, and the Westinghouse submersible *Deepstar 2000* are being used for on-site examinations of the seafloor. They will also emplace instrumentation and "tracers" for examination two months later. The surface ships *Lulu, State Wave* and *Venture* are supporting the submersibles, while making seismic profiles and side scan sonar recordings or surveys.

Some scientists believe that canyons such as the Hudson Canyon may serve as "pipelines" for the movement of sediment and sinkable pollutants. The study focuses on the dynamic processes active in these canyons and if sediment is transported, at what rate?

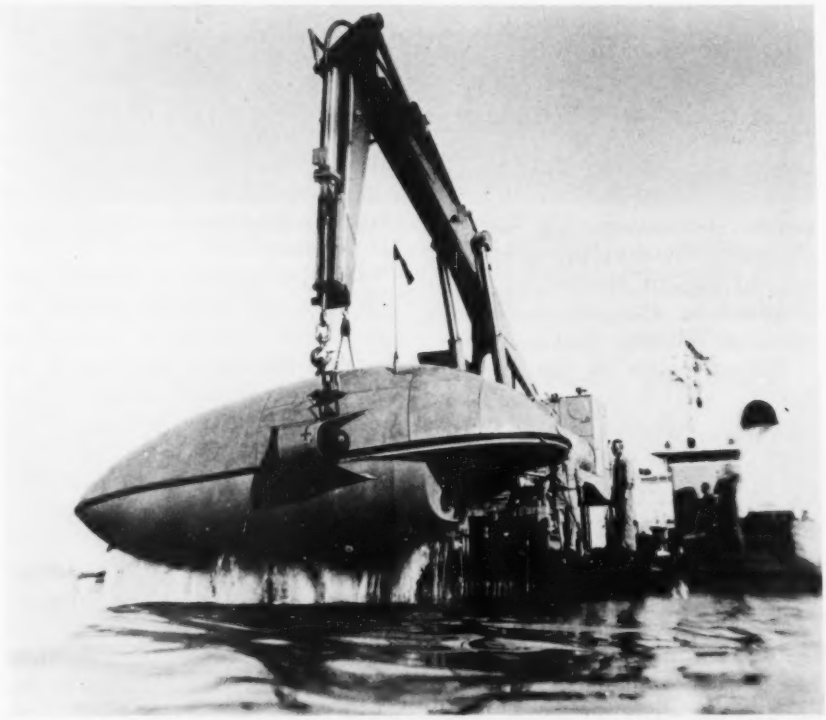
Another phase of the project will deal with sediment transport on the New York and New Jersey portions of the continental shelf, between the Hudson and Wilmington canyons. Evidence has been found in earlier studies that storm currents do move seafloor sediments about and cause slow but unmistakeable changes in the topography of the shelf. These findings challenged one scientific view which has held that little has happened to the continental shelf since it was flooded after the Ice Age.

At various locations along both the Hudson Canyon and the adjacent continental shelf, scientists aboard the *Deepstar 2000* will set out current meters on the bottom. Whenever the currents exceed about 20 cm/sec, the meters will record their strength and duration.

Alvin will also set out bottom stakes in the Hudson canyon, to measure sediment slides down the canyon slope. These stakes will again be checked in September, and the movement recorded.

From *Deepstar 2000*, soluble blocks of dyed sand about the size of bread loaves will be placed on the bottom of the continental shelf, with different colored dyes for different sized sand grains. These will be photographed in September to show sediment transport during the intervening three months.

—NOAA



SEAFLOOR EXPLORER—*Westinghouse's submersible* Deepstar 2000 *is one of two submersibles being used to explore the deep valley canyons of the Atlantic floor off the New York and New Jersey coasts to investigate whether sinkable pollutants and sediment move through the canyons to the deep ocean and at what rate?*

Five Nations Seek Minerals In Submerged Mountains

Mineral exploration of a mammoth submerged mountain range in the mid-Atlantic will be undertaken this month by marine scientists from five nations. Clues to the origin of earthquakes will also be sought.

The investigation will be made at the Mid-Atlantic Ridge, part of an undersea mountain range which extends around the world, the largest geographic feature on earth.

The expedition will also probe the continental margin of northwest Africa to determine the original edge of the African continent which has remained hidden for about 200 million years.

The 10-week expedition will be conducted by marine scientists from Commerce's National Oceanic and Atmospheric Administration together with scientists from England, Portugal, Spain and Mauritania. Oceanographic personnel have been recruited from the University of Miami, University of Wisconsin, Texas A & M, University of Connecticut and Imperial College, London.

The scientists will work aboard the NOAA Ship *Discoverer*, a floating oceanographic laboratory operated from Miami, Fla., by NOAA's National Ocean Survey. The *R/V Iselin* of the University of Miami will participate in part of the investigation.

Third expedition

The expedition is part of the NOAA Trans-Atlantic Geotraverse project. This is the third expedition of the Trans-Atlantic Traverse which was started in 1970 to carry out the first comprehensive study of the ocean bottom across an entire ocean basin.

Location of the Trans-Atlantic Traverse is a 200-mile-wide, 3,500-mile long corridor extending from Cape Hatteras, N.C., to Cap Blanc, Mauritania, in northwest Africa. The corridor represents the path along which North America and Africa are believed to have moved apart after a prehistoric cataclysm of nature which split what may have been a single landmass. When the continents are reassembled, like pieces in a giant jig-saw puzzle, in their original positions prior to continental drift, South America fits together with Southwest Africa and North America with northwest Africa.

Molten rock

At the Mid-Atlantic Ridge, where valuable minerals and clues to earthquakes will be sought, molten rock is believed to be continuously welling up from the earth's interior, causing earthquakes. According to the theory of sea floor spreading, as the molten rock cools near the surface of the earth, it solidifies and becomes welded onto the sea floor, which then spreads out to either side of the Mid-Atlantic Ridge.

The continuously created sea floor forms an ocean-wide conveyor belt which is carrying North America and Africa apart at a rate of about one inch a year.

The scientists will lower instruments to collect samples of the newly solidified rocks to prospect for sea floor minerals at the Mid-Atlantic Ridge in water depths ranging from hundreds to thousands of feet. They will also use electronic instruments to chart the shape of the Mid-Atlantic Ridge and to measure the intensity of the associated magnetic and gravity fields.

The scientists will interpret this information to gain a better understanding of the processes that cause the earthquakes beneath the Mid-Atlantic Ridge and attempt to apply this knowledge to the prediction of destructive earthquakes.

The second objective of the expedition, to determine the original edge of the northwest African continental margin, will be carried out jointly by the *Discoverer* and the *Iselin*. The two ships will use the technique of seismic refraction, which employs sound waves, to probe the ocean bottom. The second waves will penetrate several miles of sand and mud which have accumulated over the original edge of the African continent during the estimated 200 million years since Africa separated from North America.

Scientists hope that the information obtained on the position and shape of the edge of northwest Africa will enable them to reconstruct exactly how Africa and North America fitted together prior to continental drift.

—NOAA

Research Effort Aims To Protect Porpoises

A $250,000 research program is being launched by the National Marine Fisheries Service of Commerce's National Oceanic and Atmospheric Administration to augment existing efforts to protect porpoises from being accidentally destroyed during tuna fishing operations.

"We are greatly increasing our efforts to conserve and protect the marine environment from future abuse," Commerce Secretary Peter G. Peterson points out. "Porpoises are among the highest forms of life in this ecosystem, and I view their preservation as absolutely necessary.

"Studies by NOAA show that improved fishing techniques and far more extensive knowledge of the habits of this remarkable sea mammal are needed for its protection," he adds.

—Office of the Secretary

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Self-processing photographic film units. A film-assemblage and pack containing a number of self-processing film units adapted to be exposed and processed in sequence. Each film unit includes a first or photosensitive sheet and a second or process sheet, which sheets are separated during exposure and are brought into superposition for removal from the camera and for processing. The units are connected within the assemblage or pack by an arrangement of leaders, only one of which is accessible from the camera exterior after each exposure. Superpositioning, processing and withdrawal of the sheets is effected through "lost-motion" type of connector that first permits and then prevents relative movement between the sheets as a respective leader is withdrawn from the camera. Simultaneously with such withdrawal, the leader associated with the next successive film unit automatically is brought into the position where it will be accessible from the camera exterior for the next exposure and processing sequence. Patent No. 3,659,511 issued to Hubert Nerwin, Rochester, N.Y., and assigned to Eastman Kodak Co., Rochester, N.Y.

Submerged well platform. A platform supports off-shore wellhead assemblies below the surface of the water at a depth adequate to eliminate danger from surface vessels or storms. Buoyancy tanks reduce the weight supported by the platform and thereby combine with the reduced weight above the ocean floor to reduce the cost of the platform. A seat is provided on the deck of the platform to receive and seal the lower end of a removable access tube that extends upwardly above the surface of the water to allow work at the wellhead to be performed at atmospheric pressure. Patent No. 3,665,721 issued to Malcolm R. J. Wyllie, Allison Park, Pa., and assigned to Gulf Research & Development Co., Pittsburgh.

Tree harvesting apparatus. An improved tree harvesting apparatus is adapted to be mounted on a vehicle and includes a shear assembly for severing a tree. A grapple is mounted on a common base with the shear assembly and is selectively operable to grip a severed or felled tree. A single set of positioning cylinders is selectively operable to move both the shear assembly and grapple relative to the ground to facilitate positioning them in a desired relationship with a tree which is to be either severed or gripped. Another set of positioning cylinders is selectively operable to raise both the shear assembly and grapple to a nonoperating or over-the-road position. Patent No. 3,665,985 issued to Idas B. White, Blountstown, Fla., and assigned to Eaton Yale & Towne Canada Ltd., London, Ontario, Canada.

Smoke pollution eliminator. The pollution eliminator is adapted for connection to the outlet of a chimney and includes a pump having a water supply connected and an outlet pipe receiving a substantially full line pressure flow of water from the pump. Smoke means connect to the outlet pipe for introduction of smoke into the water-filled line, a settling tank is connected to the outlet pipe to receive a smoke-water mixture and an aerator receives water from the upper portion of the settling tank for ultimate return of water to the pump for closed system water circulation purposes. Patent No. 3,667,193 issued to William A. McKenzie, Rt. 5, 6950 Chatham Rd., Medina, Ohio.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,600 patents are issued each week. Trademarks are published in the *Trademark Official Gazette*. Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, GPO, Washington, D.C. 20402.

Science Calendar

July 10-14—Washington, D.C.—Shoreham Hotel. 57th National Conference on Weights and Measures. Theme: Weights and Measures—The Consumer's Affair.

July 17-21—Milwaukee, Wis.—American Society of Civil Engineers Transportation Engineering Conference. Sheraton-Schroeder Hotel. Conference theme is "Policy Issues In Transportation."

August 9-12—Kailua-Kona, Hawaii—International Symposium on Billfish. Sponsored by National Marine Fisheries Service.

Sept. 20-22—Gaithersburg, Md.—National Bureau of Standards. IEEE-TAP Environmental Conference.

Oct. 2-6—Gaithersburg, Md.—National Bureau of Standards. Third International Congress on Marine Corrosion & Fouling. Sponsored by the Permanent International Commission for Research on Preservation of Materials in the Marine Environment in cooperation with NBS, Maritime Administration, Office of Naval Research, and Naval Oceanographic Office.

Oct. 17-18—Gaithersburg, Md.—National Bureau of Standards. Association for Computing Machinery, Special Interest Group on Computer Systems Installation Management.

Oct. 30-Nov. 1—Gaithersburg, Md.—National Bureau of Standards. "Dimensional Accuracy in Mfg."

INTERNATIONAL COMMERCE REPORT

- **Trade missions boost textiles, textile machinery**
- **Reports from exhibitions at U.S. Trade Centers**
- **Economic outlooks of smaller nations**
- **Schedule of upcoming Commerce overseas promotions**
- **Sales, investment opportunities worldwide**

Export Markets Targeted For U.S. Industry

Another U.S. industry with important export potential is being headed toward excellent sales targets overseas by Commerce Department trade specialists.

The newly-published "Global Market Survey: Industrial and Scientific Instruments" joins such research studies in three other fields already put before company sales managers by the Bureau of International Commerce.

Targeting the top export opportunities for the instrument makers means providing thorough, up-to-the-minute assessment of market size and trends in each of 22 surveyed countries, plus breakdowns of the most salable products on a long- and short-term basis, prime end-user industries and their buying trends, tips on penetrating the market, and key economic indicators and significant competitive factors.

A two-year calendar of more than 300 promotional events in the instruments field, designed to help U.S. exporters enter new markets or expand sales in existing markets, is included.

Similar surveys have been published since the Fall of 1970 for the U.S. industries engaged in producing electronic data processing equipment, food processing and packaging machinery, and pumps, valves and compressors.

"Global Market Survey: Industrial and Scientific Instruments" is available at $1.25 a copy from Superintendent of Documents, Government Printing Office, Washington, D.C., 20402, or through any of the Department's 42 Field Offices. Earlier surveys, on EDP equipment, peripheral devices and software; food processing and packaging, and pumps, valves and compressors, are still available, at $1.25, $2, and $1.50, respectively.

In the months ahead surveys will be published targeting the markets in 22 countries for U.S. airconditioning and refrigeration equipment, in 21 of the world's developing nations for agricultural machinery, and in 13 countries for microfilm equipment and related accessories.

In addition, 21 countries will be covered in a survey of medical-health care equipment. Initial market research for this survey is now under way in the various countries.

Among the principal findings in the newest survey are these:

► The overseas market for industrial and scientific instruments is growing at a faster rate than the U.S. domestic market. It is expected to grow from an estimated $3.7 billion in 1971 to over $5.9 billion in 1975.

► Foreign purchases are projected to rise by 13 percent annually—from an estimated $1.6 bil-

lion in 1971 to $2.6 billion in 1975.

► The U.S. share of this market is expected to increase from an estimated $578 million in 1970 to over $1 billion in 1975.

"The expected growth of U.S. exports will be stimulated by the worldwide expansion of manufacturing and process industries, communications, research and development, and pollution control," the survey says.

"Current trends in new plant construction and the overall modernization of overseas manufacturing industries indicate a major shift toward automation of production processes. For example, foreign manufacturers are recognizing that greater productivity can be achieved by linking process controls to digital computers. There has also been a rapid growth rate of high technology industries which implies a sharp rise in worldwide demand for advanced U.S. industrial and scientific instruments and systems.

COMMERCE TRADE SPECIALIST AT WORK—*J. E. Campos (right), an international trade specialist at the Los Angeles Business Services Field Office of the Commerce Department, explains Commerce's Global Market surveys to (from left) Century Data Systems officials Willi Jilke, vice-president for engineering; George M. Canova, president, and Frederick B. Schudel, vice-president for operations.*

"In the process industries, notably in the chemicals area, U.S. producers will find an active market for integrated process control systems, electronic instruments for physical and chemical testing and analysis, and automatic control and regulator valves."

In addition to providing the positive side of the instrument export possibilities, the survey lists negative factors that U.S. businessmen should take into consideration.

The survey points out that with the admission of four new countries to the European Economic Community, instrument manufacturers in member countries may increase production to take advantage of the tariff-free market. The survey also notes that Japan, Germany, France, Italy and the United Kingdom have established instrument industries that are competitive with those of the United States.

However, the survey concludes that the 22 markets studied "are all receptive to the type of industrial and scientific instruments currently produced in the United States. However, exploitation of the existing potential will require

International Trade Winds

CHEMICALS — B.F. Goodrich Chemical Co., Cleveland, has entered into an investment agreement with Philippine interests which will lead to the construction of a polyvinyl chloride (PVC) production operation near Manila. The facility will have an initial design capacity of approximately 20,000 metric tons a year of suspension-type PVC resin. Preliminary engineering is under way and the plant is scheduled to come on stream in 1974. The operation will use BFG Chemical Co. PVC production know-how under a licensing arrangement. Under terms of the agreement, BFG Chemical, a division of the B.F. Goodrich Co., will participate in the already formed company, Philippine Vinyl Consortium, Inc., as a minority shareholder.

PLANT CONSTRUCTION—Lang Engineering Corp., agricultural engineering subsidiary of Houston-based International Systems & Controls, has been awarded a $63 million contract from the Government of the Ivory Coast for a sugar production complex. Lang Engineering will design, engineer and construct a sugar factory and refinery, cubing plant and storage facilities, and will provide management, procurement and supervisory services for other segments of the project. The company is also making available a U.S. training program for Ivory Coast personnel to learn the technical and managerial skills required for Ivorian operation of the complex, which is expected to be in operation by late 1973 at Ferkessedougou, 300 miles inland in the northeastern sector of the country.

CONSTRUCTION — Pre-engineered housing and shelter systems manufactured by Panelfab International Corp., Miami, are being shipped to Zaire (formerly Congo, Kinshasa). It is the first segment of an industrial housing facility for executive and operating personnel at Port Matadi—a major milling complex under construction by Continental Milling Corp.

COMPUTERS — Hoogovens, the Dutch national steel works, has ordered a dual Univac 418 III computer system valued at approximately $2.5 million from the Univac Division of Sperry Rand Holland. The first of the two computers will be delivered next month and installed at the company's steel complex at Ijmuiden, about 25 miles from Amsterdam. The primary application for the new real-time system will be production control. In addition, it will function as a "bridge" between existing central systems. The new project is part of Hoogovens' plan to design a completely automated system for all information processing, to be implemented in phases during 1973-78.

intensified sales programs that can meet the challenge of foreign competition, particularly from the industrially advanced countries of western Europe and Japan."

Program's objective: sales

In a recent interview with a magazine for industrial managers, Bureau of International Commerce official Robert L. Pritchard said of the research and marketing program: "The name of the game is not how many reports are produced, but how many export transactions result. We use a rifle, not a shotgun. Our emphasis is on the industries with the greatest export potential. We look for industries with a leg up or a comparative advantage."

In the EDP field, for example, the BIC specialists identified 1,656 U.S. firms capable of exporting computers, peripheral equipment, or software. With the appearance of the survey culminating market research in 25 countries and with more than 5,000 sales calls made on industry by Commerce's international trade specialists, the upshot was 5,567 planned export transactions, and 2,441 such transactions actually completed.

Company's experience

One of the EDP firms that has found the program valuable is Century Data Systems, Inc., of Anaheim, Calif., a subsidiary of California Computer Products, Inc. Not yet four years old, it has grown from its original 20 employees to about 800 by supplying high quality peripheral equipment, including disk drives and controllers, to the computer industry. It was looking for opportunities to expand its U.S. marketing base and had made arrangements with a German distributor-licensee when the Global Market Survey of EDP equipment was being prepared by the Commerce Department.

"It was soon evident," relates a Century Data report, "that without the necessary experience in export marketing, our effort would be seriously limited. The pitfalls were many: proper classification of material, export license requirements, shipping regulations, trade tariffs, and export restrictions.

HEADED FOR MARKETS—*Frederick B. Schudel of Century Data Systems describes component assembly operations to Commerce trade specialist J. E. Campos (left).*

"It was a call to the Department of Commerce Field Office in Los Angeles that broke the log-jam of costly, frustrating delays and smoothed the way for the first shipment (in February 1970) to West Germany. At the close of calendar year 1970, CDS had exported equipment valued in excess of 8 million dollars."

Through the Department of Commerce's international trade specialist, Century Data Systems learned of the many services available under the Department's Global Marketing Program.

The EDP Global Market Survey, Century Data's executives learned, identifies specific market opportunities—in 25 different countries—over a five-year period. It identifies computer population in detail. It analyzes market characteristics, distribution methods and trade practices. It spells out proven market development techniques and recommends effective promotional activities.

Trade Lists were also available to help Century Data find customers abroad. Commerce's World Trade Directory Reports provided descriptive and background information on specific foreign firms. Trade Contact Surveys helped to locate agents, distributors and licensees abroad.

"Above all else," Century Data commented, "we recognize the special time and effort spent by the Commerce Department's representative at the plant in learning the company's products and specialized marketing requirements.

"With a close eye on the computer market abroad—estimated at 20 percent yearly growth over the next three years—and with a knowledgeable team backing up their efforts, Century Data is confident that the European marketplace will be an important part of future successes."

DISPLAYS SAMPLES—*Surrounded by his company's products at the U.S. Trade Center, Stockholm, mission member Stuart Ullman (left) talks with buyer.*

GREETED BY OFFICIALS—*U.S. Ambassador Jerome H. Holland (second from left), Mrs. Holland (left), and Richard Kirby, Trade Center Director, hear about mission activities from Richard Streim.*

COATS, ANYONE?—*Mission member Victor DeLoya (left) describes his firm's apparel to Scandinavian customer.*

Nordic Buyers Attracted To U.S. Apparel Fashions

The Western look—in jeans, jackets, and shirts—sparked the most enthusiasm from potential Scandinavian customers during a recent U.S. apparel trade mission to Sweden and Denmark.

Although somewhat price-conscious, the prospective clothing buyers were broadly receptive to U.S. goods. Several expressed a desire to see more U.S. apparel and asked why more Americans had not previously exhibited in the area.

Some 150 industry representatives from the Nordic countries, which include Finland and Norway, had been invited to the U.S. Trade Center in Stockholm and the Scandinavian Fashion Center in Copenhagen to view samples on display last month by the seven apparel manufacturers comprising the business mission from the United States.

The mission members, with their samples, not only made some introductory sales and acquired market information—they appointed eight agents and expect more than $1 million worth of orders in the next 12 months.

Mission Director Alan Polansky, Deputy Director of the Commerce Department's Office of Textiles, urges the U.S. apparel industry actively to explore the potential economic benefits that could result from selling to this small, integrated and lucrative market. Polansky emphasizes, however, that it might take time and patient effort before good results could be achieved. Deputy Mission Director Susan Doyle, who is a special assistant to the Acting Assistant Secretary for Domestic and International Business, pointed out that the British gained a dominant and profitable foothold in this market through persistent selling efforts over a period of several years.

All of the participants agreed that Scandinavia seemed open to U.S. goods, yet each member had his own views regarding what it would take to sell in the market. For example, Albert Feldstein, International Division of Washington Manufacturing Co., New York, a firm that carries an extensive line of Western merchandise, found both agents and retailers receptive to several items that reflected new Western styling ideas. According to Feldstein, the "right look" rather than price was the prime concern of buyers placing orders for immediate delivery.

Richard Streim, R.G. Barry Corp., New York, found that stylish lower priced slippers had a definite place in the Scandinavian market; Sidney Magid, Creighton Shirtmakers, Reidsville, N.C., was encouraged about the potential in the Danish market for top quality classically styled men's shirts; Soly D. Srour, Biquette Originals, West New York, N.J., with a high style children's knit dress line, discovered that although Scandinavians were developing fashion awareness, retailers offered a very small selection of quality styled children's dresses.

Market favorable

There is good potential in the Scandinavian market for selected American items, the group concluded. For example, there is an emerging demand for stylish knitwear for children. For the participants, selling through their newly appointed agents appears to be the most promising approach.

Other mission members included Jim White, Jim White Manufacturing Co., Wilmington, Calif.; Stuart Ullman, Canoe Manufacturing Co., Pine Grove, Pa.; and Victor DeLoya, Fox Knapp Manufacturing Co., New York.

IN KOREA—*Textile machinery mission in Seoul met with Spinners and Weavers Association and exchanged views with potential customers. Assn. President Kim Young Joo is at head of table (center); on his right, Mission Director T. J. Jackson.*

Far East Textile Machinery Market Good; Flexible Financing Needed

Several Far Eastern countries visited recently by U.S. suppliers of textile machinery offer them good chances for sales, though financing often poses a problem.

This point cropped up repeatedly as a U.S. Textile Machinery Trade Mission to Korea, Hong Kong, the Philippines, and Indonesia reported its findings to its sponsors back home. Despite the need for more competitive credit terms, the eight companies comprising the group look toward a sales potential of more than $10 million in these markets during the next 12 months.

The mission was organized by the U.S. Department of Commerce with the cooperation of the American Textile Machinery Association (ATMA). One $330,000 contract was signed and several agents were appointed during the business trip.

In Seoul, the group met with the Spinners and Weavers Association for an exchange of views between mission members and potential customers. A.V. Caporossi, Morrison Textile Machinery Co., Fort Lawn, S.C., commented that the markets in Korea "are dependent not only on liberalization of financial terms but on our ability to promote a more aggressive sales program and to appoint qualified representatives, supporting them by providing the necessary technical know-how which is lacking. We must assure our customers of the availability of spare parts and service in the shortest time."

The mill operators recognize the superiority of American equipment, he said. "As they are developing new markets requiring better quality control and as they must be competitive, they must consider new equipment and new methods."

The textile industry is a major one in Hong Kong and, unlike the situation in the other countries visited, local capital is available for financing sales. Mission Director T.J. Jackson of the Commerce Department pointed out that overseas competitors have long had a price advantage in this market. "However, with the revaluation of the dollar, U.S. machinery is more nearly price competitive," he added. "Many U.S. manufacturers have not adequately covered the market and as a result their equipment is less well known than their overseas competitors. A more aggressive effort could reap big dividends in expanded sales."

The Philippine textile industry is eager to have U.S. machinery

TELLING MISSION STORY—*The U.S. businessmen had press and TV coverage throughout their tour. Above, members at press conference in Hong Kong.*

for its modernization programs, Director Jackson reported. He said that the $3.2 million in sales projected for the next year could be much higher if financing problems are resolved. According to B.H. Kennedy, Saco-Lowell, Greenville, S.C., "There is a reasonably strong demand for textile machinery because there is a shortage of textiles even for the domestic market."

Indonesia needs equipment

Indonesia, the last stop for the mission, offers perhaps the strongest potential of the areas visited. "There is more domestic need for basic cloth than in any country I have visited," said K.G. Lytton, Fiber Controls Corp., Gastonia, N.C. According to a recent survey of the Indonesian textile industry, the country needs $350 million worth of textile equipment in the next eight years. The U.S. Embassy reports, however, that "without flexible financing and more effort by American manufacturers, our current marginal share of the market will not come close to our potential."

In Djakarta the mission worked with a counterpart team that included the Director General of the Textile Industry and the President of the Indonesian Chamber of Commerce and Industry. The U.S. executives project sales for the next 12 months at $3.7 million. And again Jackson pointed to the big problem: "This figure could easily be doubled if financing problems are resolved."

Graydon R. Powers, Jr., ATMA executive vice president, accompanied the mission. Other members not mentioned above were Marshall Fulp, Bahnson Co., Winston-Salem, N.C.; George S. Gregory, Leesona Corp., Warwick, R.I.; Joseph T. Lamb, Parks-Cramer Co., Fitchburg, Mass.; Carroll C. Parker, Curtis & Mable International, Worcester, Mass.; and S.W. Thompson, Barber-Colman Co., Rockford, Ill.

Florida Mission Sells Building Materials In Caribbean Area

"Competitive and price-conscious, but very promising areas for development of increased business for Florida."

That's how a trade mission from the Sunshine State appraised the markets of nearby Haiti and the Dominican Republic.

Ten Florida firms, most of them supplying building and construction material and hardware, spent six days in Port-au-Prince and Santo Domingo and brought back orders for $358,000. They estimate an additional $3.3 million in orders in the next six to eight months. Also, bids totaling more than $2 million are expected to be made during the next six months on public and private projects.

Richard F. Lankenau, International Trade Director of the Florida Department of Commerce, and Sandor Marshall, Trade Development Director of the Board of International Trade of Florida, led the mission.

Tourism, Environment Control Missions Planned For This Fall

U.S. firms supplying hotel and catering equipment, tourist industry equipment and services, or environmental protection equipment are invited to participate in trade missions now being organized to explore markets abroad this fall.

► First of the three just scheduled will be a delegation of industrialists offering equipment or supplies for air conditioning, food service, janitorial and grounds-maintenance, laundry and dry-cleaning, leisure time, security; and office machines.

The U.S. executives will visit Nassau, Port-au-Prince, and Santo Domingo Sept. 19-29.

► A tourist industry mission will go to Greece, Cyprus, and Israel in late September. Tourism growth is reported to be phenomenal in these countries.

► An environmental protection group, combining a mission operation and seminar, is scheduled for Czechoslovakia, Poland, and Austria in late October. Participants should be prepared to present technical papers at a meeting of several hundred Eastern European pollution control experts.

For information on any of these specialized missions, write Trade Missions, BIC-940, U.S. Department of Commerce, Washington, D.C. 20230; or phone, for the first listed, Andre Williams, 202-967-4227, and for the second and third, Fred E. Crosley, Jr., 202-967-2232.

Arizonans Explore E. Europe Markets

Half a dozen emphatic "do's" and a "don't" are suggested for U.S. firms interested in doing business in Eastern Europe by an Arizona trade group just back from the USSR, Poland, and Czechoslovakia:

Do plan to visit East European countries several times a year.

Do get interest from a state trading agency in writing before evaluating that interest as serious.

Do consider a European sales office if you expect to conduct long-term business in Eastern Europe.

Do give follow-up efforts the highest priority—many U.S. firms have exhibited poor follow-up programs.

Do recognize that the National Chambers of Commerce or Foreign Trade in each country play the key contact role for putting a U.S. firm in touch with appropriate state trading agency officials.

Do recognize that state trading organizations operate independently—usually within the requirements of the five- and adjusted one-year state plans.

EXPORT MANAGEMENT COMPANIES MEET—*Conferences were held in Dallas and Houston, under sponsorship of the Southwest Association of Exporters and Commerce's Business Services Field Offices in those cities, to bring together export management firms and Southwest manufacturers. Photo, at Houston meeting, shows (from left, standing) Felix C. Guerrero of the Houston Field Office; William F. Sprinkle, president of the exporters' group, Ft. Worth; James Harris of the Texas Industrial Commission, Austin, and Marilyn Waida, president of Abernathy International Advertising and Associates, Inc., Victoria, Tex. Sprinkle, also a director of the new National Federation of Export Management Companies, explained the purposes of both regional and national groups. Nine area EMC's joined the Southwest association at the meetings.*

Don't expect to develop new markets on a short-term basis; look toward a minimum of a year or two.

The group's members, in Moscow during President Nixon's visit, felt that his presence strengthened interest in their activities. Leader James M. Leinenkugel, a banker, and chairman of the Arizona Regional Export Expansion Council that sponsored the trip, said he met with Russian bankers and established "basic channels of communications for financial transactions."

Clearance System For Export Control Is Now Streamlined

The Department of Commerce has instituted a new and simplified system for clearing exports subject to its control.

Shipper's export declarations will now be presented directly to the carrier by the exporter or the foreign freight forwarder prior to the departure of the shipment.

Previously, authentication by a U.S. Customs Office was required before the shipper's declaration could be accepted by the carrier. The carrier will now be responsible for insuring completeness and accuracy of the information on declarations insofar as it pertains to the specifics on the exporting carrier (and flag for shipments by vessel), foreign port of unloading and bill of lading or air waybill.

In the case of a shipment requiring a Commerce Department validated export license, the exporter will retain the license and record shipments against it. When the license is fully used or expired, he will return it to the Commerce Department's Office of Export Control. Previously a validated license had to be given to Customs with the shipper's export declaration.

All export shipments, whether under general or validated license, continue subject to selective physical examination.

Tariff Commission Issues East Europe Trade Study

A trade study focusing on the considerations involved in granting Most-Favored-Nation treatment to the countries of Eastern Europe has been published by the U.S. Tariff Commission.

The study, by Commission staff member Anton F. Malish, Jr., considers the effect of applying the full rates of duty on imports from Eastern Europe at three points: before the discrimination was actually applied, before the rates of duty negotiated in the Kennedy Round were applied, and in 1970.

It also examines what reciprocal benefits might be obtained if the U.S. re-extended MFN treatment to one or more of the Eastern European countries. The study includes 22 detailed tables on U.S. imports.

Copies are available on request, while a limited supply lasts, from the U.S. Tariff Commission, Washington, D.C. 20436.

Trade Fairs, Centers

U.S. Exhibitors Sought For Four Overseas Shows

Industrial assembly equipment and supplies: Japan. The Japanese economy appears to have reached the bottoming out stage, and is ready for a steady comeback. Real GNP growth is expected to amount to 7.7 percent, rising to about $292 billion.

These recent developments on the Japanese economic scene, plus the favorable market for U.S. industrial assembly equipment and supplies, were underscored for U.S. exporters in recent studies conducted in Japan by the U.S. Department of Commerce.

Accordingly the Commerce Department has scheduled a special showing of these types of equipment Nov. 13-18 in the U.S. Trade Center in Tokyo.

For details, contact Maurice A. Shea on 202-967-4511, or write him at BIC-950, U.S. Department of Commerce, Washington, D.C. 20230.

Packaging machinery, equipment and materials: United Kingdom. British manufacturers are now preparing to enter the Common Market, and demands are increasing for high speed machinery. Some high speed packaging equipment is manufactured in Britain, but U.S. machinery appears to be especially well suited to British needs.

To help U.S. suppliers in this growing market, the U.S. Trade Center in London has scheduled PAKEX 72, a showing of packaging machinery and equipment, for Oct. 9-13.

There appears to be little if any difference between consumer packaging methods in the United Kingdom and those employed in the United States.

For detailed information on products to be exhibited, call Bill Gaines on 202-967-4073, or write him at BIC-938, U.S. Department of Commerce, Washington, D.C. 20230.

Metal parts production equipment: Sweden. Metalworking is Sweden's largest industry. In 1969, its output exceeded $6 billion, constituting more than 1/3 of all industrial production.

Interviews with engineers and trade sources in Sweden indicate that concentrated sales efforts by U.S. firms would enable them to increase their share of this growing market, partly because of superior U.S. technology for many products and partly because German equipment has become more expensive due to rapidly rising wages and revaluation of the Deutsche Mark.

The other three Nordic countries —Norway, Denmark and Finland —present promising, but smaller, markets for U.S.-made equipment which can also be reached through participation is the special exhibit of this type of equipment scheduled for the U.S. Trade Center in Stockholm Nov. 6-11. Finland, especially, continues to show interest in upgrading its engineering industry and production of metal parts.

For more information, call Robert Dormitzer on 202-967-3848, or write him at BIC-946, U.S. Department of Commerce, Washington, D.C. 20230.

Business equipment and office machines: Lebanon. The U.S. Embassy in beirut is sponsoring a Sept. 11-20 exhibit and catalog show featuring electronic calculating equipment, and office calculating and accounting machines. The commercial showroom facilities at the Embassy are being converted into a Regional Trade Development Center, and this will be the inaugural event. For details call John Bodson on 202-967-5148, or write him at BIC-962, U.S. Department of Commerce, Washington, D.C. 20230.

Events In Europe, Near East Invite U.S. Participants

U.S. firms are welcome to exhibit their products at four upcoming trade shows in Greece, Switzerland, Lebanon and Austria.

Fourth Modern Home Exhibition, Oct. 1-10, Zappion Bldg., Athens: Any suppliers of items used in modern homes are invited to exhibit. Contact Modern Exhibition Consultants O.E., 57 Patriarchou Joakim St., Athens 140, Greece.

First International Exhibition of Inventions and New Techniques, Nov. 18-26, Palais des Expositions, Geneva: This fair is co-sponsored by the Canton of Geneva, The Swiss Office for the Development of Trade, and several chambers of commerce. Write, before Sept. 19, Promex SA, 22 rue de Mont Blanc, 1201 Geneva, Switzerland.

CHEM-EX '72, Oct. 14-22, Industry Institute, Beirut: Food processing machinery, packaging machinery, and factory maintenance machinery are wanted in addition to chemical and scientific items. U.S. firms are urged to act through their distributors. Contact: Amal Haddad or Miss Ida Libbus, Industry Institute, Corniche Manara, P.O. Box 2806, Beirut, Lebanon.

'America Week', Austria: An America Week will be held in Dornbirn Sept. 15-23, featuring U.S. man-made textiles and clothing, educational toys, hardware and household supplies, cosmetics, furniture, canned fruits and vegetables, and auto supplies. U.S. firms interested in having their products exhibited can contact: "Einkaufszentrum-Dornbirn", c/o Dr. Rudolph Fuchs, Altes Rathaus, A-6850 Dornbirn, Austria, with a copy mailed to the U.S. Embassy, 1X Boltzmanngasse 16, A-1091 Vienna, Austria.

FLYING TO MARKET—*Planeload of Dutch businessmen poses by plane chartered by U.S. Embassy in The Hague to bring them to food processing show in Paris U.S. Trade Center. U.S. Ambassador Middendorf is in dark suit, center foreground.*

American Embassy Flies Dutch Buyers To U.S. Trade Center Shows

It's beginning to be a habit! Twice this year a U.S. Trade Center in Europe has hosted a group of Dutch businessmen flown in on a plane chartered by the U.S. Embassy in The Hague. U.S. Ambassador to the Netherlands J. William Middendorf accompanied the 60-member group to the May 15-19 exhibit of food processing and packaging items at the center in Paris. An earlier group had attended a pollution control show at the Frankfurt center.

Thirty-two of the 42 exhibitors were seeking representation or joint ventures in France, and 36 wanted relationships elsewhere in Europe. A total of 15 agreements were concluded during the show, and negotiations were opened with 186 other potential representatives.

"I feel that the right audience visited our stand," said the LTI Corp.'s representative. "We reached the right people," said the man from Manley, Inc.

Including off-the-floor sales, the U.S. exhibitors expect more than $8.9 million in business during the next years.

Another unusual feature of this show was the fact that practically all of the exhibitors were recruited through the efforts of Commerce's 42 Business Services Field Offices.

Stockholm Hotel Equipment Exhibit Exceeds Expectations

"Results far exceeded our expectations; the right kind of people came into the show." That's how Paul Lederhausen of Barbecue King describes his firm's participation in the exhibit of U.S. hotel and restaurant equipment that was held recently at the U.S. Trade Center in Stockholm.

The 44 firms represented at the show reported a total of 2,092 sales leads.

Floor sales totaled about $70,000, with another $5.1 million expected by the exhibiting firms to follow in the coming year.

Twenty-six exhibitors were seeking representation in one or more Scandinavian countries. Twenty-nine agents were appointed during the exhibit and negotiations were under way with another 47 as the show closed.

"The exhibition gave us, at minimum expense, maximum exposure to the Scandinavian end-users of our products as well as potential distributors," said G. A. Hastings, Metropolitan Wire Goods sales manager for continental Europe.

A total of 1,188 visitors registered at the week-long event.

GOURMET'S DELIGHT—*Chef Vernon H. Jensen from New York's Hotel Americana puts the finishing touches on hamburgers he prepared for members of the Swedish Hotel and Restaurant Assn. at a special mid-show reception at the U.S. Trade Center in Stockholm. U.S. Ambassador, Dr. Jerome H. Holland, waits at left.*

U.S. Firms Clean Up At Frankfurt Pollution Control Goods Exhibit

"This show gave us the opportunity to talk to the most important people in industry and government," said Orion Research's C.A. Rossiter of the recent exhibition of pollution control equipment at the U.S. Trade Center in Frankfurt. "The information we obtained from this show will help us increase our European business by better than $1 million in the next two years."

The 1,215 registered visitors included Dutch businessmen flown in from The Hague on a charter flight arranged by the U.S. Embassy there.

Off-the-floor sales totaled more than $350,000, while the participants expect another $6.2 million in business to result in the twelve months following the show.

Eight exhibitors were seeking agents or distributors in Germany. Two agreements were signed during the week-long show, and negotiations were under way with another 42 prospective representatives as the exhibit closed.

A total of 31 out of the 35 U.S. firms represented, stated that they had fully achieved their primary marketing objective.

AUTOPLAST '72

Almost 500 sales leads were developed by the 16 U.S. companies representing 22 producers which participated in the "Autoplast '72" exhibit at the U.S. Trade Center in Frankfurt, May 15-19.

An audience of 455 businessmen from 16 countries viewed the materials, instrumentation and equipment for the plastics industry. Total orders for direct sales and for the first post-show year are predicted at over $800,000. Two companies were interested in setting up licensing arrangements or distributorships during the show, and six candidates were being interviewed when the exhibit closed.

Rototron Corp., one of the new-to-market firms, estimates $250,000 sales during the next twelve months and had four prospective licensees under negotiation at show's end. The firm's president commented such shows, in conjunction with other services of the Department of Commerce, "have become the basis of our entire export and foreign license program."

Automation Control, France

The showing of U.S. automation control equipment at the Paris Trade Center attracted the representatives of 31 American firms. More than half, or 17, were new to the French market.

More than $3.7 million in sales are projected during the twelve months following the February exhibit.

A total of 14 agents were signed during the show and negotiations with another 28 were under way at its close.

An international colloquium on automation was presented in connection with the exhibit in helping attract a particularly high quality audience.

First U.S. Exhibit At Zagreb Produces Sales And Agents

The United States officially sponsored an exhibit at the Zagreb Spring Fair for the first time this year, and the 62 American firms which participated expect to make $6.7 million in sales to Yugoslavs during the next year as a result.

While only 1,519 Yugoslav visitors actually registered, Commerce Department observers estimate the vast majority of the Fair's 52,000 visitors made a point of viewing the U.S. exhibit.

A total of six agreements for representation were signed during the week-long show, and negotiations were opened with another 92 potential representatives in the Yugoslav market.

SUCCESSFUL OPENER—*The first official U.S. participation in the Zagreb Fair found the Yugoslavs in a buying mood. These visitors some of a total of more than 50,000, are watching a demonstration of Nelson Stud Welding Co. equipment.*

Entry Into EEC Should Make Ireland Attractive Area For U.S. Investment

Ireland's overwhelming vote to join the European Communities has major significance for American business.

With the affirmative vote on the May 10 referendum, reports the U.S. Embassy in Dublin, the Irish economy is poised for the five-year transition to full entry which begins Jan. 1, 1973.

Marked stimulus

Most observers believe EEC membership will provide a marked stimulus to Irish economic growth, but in the meantime, in 1972, the economy is subject to a number of countervailing influences. On the one hand, recovery from the recession of 1969-70 raised the real GNP growth rate from 1.5 percent in 1970 to nearly 3 percent in 1971, although problems of inflation, stagnation, and unemployment remain.

Predictions early this year that real GNP would rise by up to 4 percent in 1972 were revised, however, in the wake of the shootings in Derry and the subsequent burning of the British Embassy in Dublin and IRA bombing of the British paratroop headquarters at Aldershot, England. The adverse impact of these events on British tourism, investment, and trade in Ireland was expected at the time to cut 1972 GNP growth to a mere 1.5 percent.

However, tension has eased somewhat recently, especially following the Heath initiatives of late March. While tourism from Great Britain and Northern Ireland will still be seriously down from previous years, exports to the United Kingdom have not been interrupted. According to the Industrial Development Authority, British investment in Ireland had already declined markedly before Derry, but has been more than supplemented by investment from the Continent, the United States, and Japan, spurred on by the prospect of Irish entry into the EEC.

The Irish Government has also taken a hand in attempting to influence growth this year by introducing the first deficit budget in the history of the Republic. The Government estimates that its stimulus will raise GNP growth by about 1.75 percent between mid-1972 and mid-1973 over its earlier estimate of between 2 and 2.5 percent for 1972.

Consumer prices rose by 9.25 percent between February 1971 and February 1972. Agricultural prices increased 10 percent in 1971, in anticipation of EEC membership. The main stimulus to inflation has been the rapid increase in both industrial and agricultural incomes, which went up an average of 12 to 13 percent last year. Ireland's competitiveness continues to weaken, as unit wage costs continue to rise faster than in most other OECD countries.

Inflation has been accompanied by stagnation in real investment and consumer demand. A statistical rise in real investment of about 6 percent in 1971 reflects the recovery of the construction industry from the effects of the 1970 cement strike and exceptional imports of ships and aircraft. Imports of producers' capital goods remain sluggish and are not expected to rise significantly in 1972. Real consumer demand was also extremely slack over 1971 as a whole, and there has been no indication thus far of a stronger upward trend.

This continuing stagnation, coupled with reduced emigration and redundancies in declining industries such as textiles, clothing and footwear, which are increasingly subject to free competition from the United Kingdom, has led to increasingly severe unemployment. The rate is now about 9 percent. While entry into the EEC is expected eventually to produce more jobs, the short-term outlook is not encouraging.

Irish merchandise exports grew at a 15 percent rate in 1971, while imports were up by 11.5 percent. The trade deficit, about $556 million, was slightly higher than in 1970.

Important steps

The Irish Government has taken important steps to try to stimulate the stagnating economy and prepare Ireland for entry into the European Communities. The 1972-73 budget calls for increases in social welfare benefits and other payments, coupled with reductions in tax levies, which it is estimated will result in a $90 million deficit, to be financed mainly by borrowing. The Government hopes the increased spending power generated by the budget will fuel growth rather than inflation and

IRISH TO GET BOOST—*EEC entry is expected to spur Ireland's economy. Above, a power station near Limerick.*

has urged restraint in price and wage increases.

The public capital program, which accounts for half of gross domestic capital formation in Ireland, was increased by $90 million over the amount spent last year. The funds will go mainly into housing, educational buildings, industrial grants and credits, electricity development, and telephone development.

Development strategy

Mainly in connection with EEC entry, the Irish Government on May 10 announced a new regional policy and five-year job creation plan. The regional strategy, intended to apply for the next 20 years, would confine the economic development of Dublin and environs to accommodating the natural population increase and place the emphasis on expansion in and around other provincial centers and strategic towns.

On the trade side, Ireland will phase into the EEC's Common External Tariff (CXT) over a five-year period, while phasing out its tariffs with other EEC members. Generally, capital goods and raw and semi-finished materials not produced locally now enter Ireland with little or no duty. Under the CXT many raw materials such as coal, crude oil, naphtha, rubber, and ores will carry zero tariff; refined industrial chemicals will carry between 3 and 18 percent duty with a concentration around 6 and 11 percent; semi-manufactured goods between 5 and 10 percent; capital goods around 5.5 percent; and electrical machinery about 7.5 percent.

Ireland assesses high tariffs on finished consumer goods and products for the building industry at present, but under the CXT they will be much lower in most cases. However, while U.S. products will have to pay these duties, products produced in the EEC will enter Ireland duty free.

American firms producing in Ireland will have to pay the Common External Tariff on materials and capital goods imported into Ireland from outside the Community. However, they will be entitled to drawback duties paid on materials that go into goods exported from Ireland outside the Community. Drawbacks will also be granted on Value Added Taxes payable on goods produced in Ireland and exported outside the Community. Under the CXT, duties will not be refunded on machinery, whether the finished products are sold inside or outside the EEC. Nevertheless, American firms producing in Ireland will benefit substantially from the eventual elimination of tariffs on goods exported from Ireland to other members of the Ten.

Under the agreement negotiated with EEC, Ireland has been permitted to retain its incentive grants to new industry covering up to 50 percent of fixed assets, as well as tax exemption for profits derived from exports. Obligations undertaken by the Government to firms under these schemes will remain valid even if a particular scheme is terminated eventually, and the EEC also agreed that, if some incentives which did not accord with EEC policy were eliminated, they would be replaced by other equally effective incentives. The EEC agreed to assist Ireland in promoting economic development.

Ireland's incentives, its intention to devote important resources to expansion, job creation and industrial dispersal, and the vastly enlarged market it will have access to within the Community make it a most attractive location for American investment, so long as inflation can be restrained and the political situation in Northern Ireland does not affect the stability of the Republic.

Upsurge Forecast For Saudi Arabia, Top U.S. Customer In Arab World

Saudi Arabia is now not only number one in world oil exports but has also become by far the best customer of the United States in the Arab world, buying more than $170 million of U.S. goods last year. An unprecedented oil production expansion program by ARAMCO (The Arabian American Oil Co.) has begun what all observers predict will be the biggest boom ever in the Saudi economy, reports John Nesvig, Commercial Attache at the U.S. Embassy in Jidda.

Increasing demands

Presently limited to the Eastern Province of the Kingdom, this economic upsurge will include the whole country as soon as actual government expenditures reach planned levels. Fueled by major oil company and government spending, the consumer market will bring increasing demands for consumer durables, housing and services.

Since virtually every item consumed in Saudi Arabia, from rice to toothpaste, is imported, this means tremendous opportunities to producers able to compete in this virtually free market. The recent devaluation and other readjustments have made U.S. goods more attractive, at least for the moment.

Triggered by ever-increasing world demand for petroleum and low tanker rates which make Gulf crudes competitive in Western Europe and the Western Hemisphere, ARAMCO production has skyrocketed. With present production resources strained to the limit, ARAMCO has begun a rapid expansion program. Its purchases of goods in 1971 were approximately $125 million; this is ex-

pected to double in 1972 and reach a level of $360 million in 1973.

Previously, most ARAMCO purchasing was handled through its offices in New York and the Hague. This has changed, with ARAMCO now handling an increasing percentage of purchases in Saudi Arabia. In addition, it has been channeling an ever-increasing percentage of purchases through local merchants in an effort to encourage Saudi business. At the same time, the firm is beginning to divest itself of many of its non-oil functions, such as maintenance and spare parts inventories, with the ultimate goal of becoming strictly an oil producer.

With ARAMCO increasingly insisting that suppliers service what they sell, companies will have to develop a strong Saudi distributor and continue to support their service and sales organization in the country if they wish to cash in on the ARAMCO market. Several U.S. companies have formed joint ventures with Saudi businessmen in the past year for just this reason. More are sure to follow.

After several years of budgetary restrictions, nearly half or about $1.1 billion of this year's budget is earmarked for development projects. Due mainly to delays caused by bidding procedures, comparatively little of this money has actually been spent. It will eventually be spent, and with government revenues coming in even faster than anticipated due to the sharp rise in oil production, next year's budget, which will be announced in August, is expected to be significantly larger than this year's $2.4 billion.

Now that budgetary restrictions are no longer a major problem, many large projects will be started. The new Jidda airport, estimated to cost over $200 million, may receive funding in next year's budget. The government's ambitious highway program is moving ahead quickly. Plans exist for a large increase in water desalinization capacity, with both the Jidda and Al Khobar plants slated for doubling in capacity in the near future and several smaller plants planned.

SAUDIS SET FOR BOOM—*The predicted Saudi Arabian upturn will spur activity in all areas of the economy, according to this report. Above, a cement plant in Jidda.*

Another rapidly growing field is communications, with plans for ground satellite stations and with bids already submitted on a microwave-coaxial cable link between all major cities. Also receiving increased emphasis are such urban development projects as streets, schools, water and sewage systems.

Market for services

Lacking trained manpower, the Government is in the market not just for roads and desalinization plants, but also for engineering, consulting, operation and maintenance services. American management is much admired and the Saudi Government is unafraid of using foreign skills. Virtually every ministry has foreign consultants working for it, with several having a number of different consulting firms providing a variety of services.

Most complex projects, the new Jidda desalinization plant for example, also have a foreign, in this case a U.S., company holding the operation and maintenance contract. This is a field where U.S. companies have much to offer, both in terms of technical skill and managerial ability.

With each budget dollar generating 70 cents in imports, Saudi Arabia's total imports should almost double, to $1.7 billion, when expenditures reach present budgeted levels. This will mean not just increased ARAMCO and government purchases, but also greatly increased consumer spending.

As the Saudi market increases in size it is also becoming more sophisticated, a trend which presents both an opportunity and a challenge to U.S. firms. U.S. products enjoy an excellent reputation in Saudi Arabia for quality. Increasingly, however, the Saudi consumer is demanding spare parts availability and good service. While the opportunity exists for greatly increased future sales of U.S. products, adequate attention must be given to distributor support if the full sales potential is to be realized.

Presently, U.S. firms lag far behind their competitors in Europe and Japan in this vital area. Unless corrected by assignment of full-time representatives in-country or considerable investment of managerial and technical help to the Saudi agent, the U.S. share of this largest market in the Arab world will not be maintained.

Ghana's Belt-Tightening Actions May Provide Basis For Sustained Growth

Ghana is presently working its way through a severe balance of payments problem.

Imports in 1972 are substantially below 1971 levels. Real per capita economic growth is likely to be negative, compared to the modest rate of one to two percent probably achieved in 1971 and approximately a zero rate achieved over the last twelve years as a whole. Once the belt-tightening exercise is completed and balance of payments equilibrium is restored, a basis for sustained economic growth should exist, reports the U.S. Embassy in Accra.

Ghana obtains between one half and two thirds of its export earnings from cocoa. Cocoa earnings dropped some 20 percent in 1971 as a result of lower prices and output, but a larger crop this year is expected to boost earnings.

Because of uncertainty about Ghana's ability to service its short-term debt (up to one year), the export credit insurance bodies of all major exporting countries suspended cover for exports to Ghana in early 1972. The Ghana Government and the Bank of Ghana have announced their intention gradually to work off the short-term debt and current arrears. When a plan for payment is worked out and payments proceed in accordance with the plan, export insurance cover may become available again.

Meanwhile, most exporting to Ghana is now on the basis of remittance before shipment. Under these circumstances, the previous mandatory 180-day credit system, in force for many years, has been dropped. Under the old system foreign exchange for imports was made available only after 180 days from date of shipment.

Ghana has attempted to meet its foreign exchange shortage by drastic steps.

First, it undertook a devaluation last December, and completely liberalized most imports. At the same time it abandoned its system of variable surcharges, which were designed to regulate the level of imports; it also abandoned its export bonus incentive system and its taxes on the conversion of cedis to foreign exchange for service payments.

Second, the new Government reimposed licensing controls on all commercial imports, and issued very few licenses. So far during 1972 the level of orders placed overseas is consequently far below that of the same period of 1971.

Third, it imposed strict price controls on key consumer items, and rolled back some prices.

Fourth, the Government has attempted to discourage speculative buying by penalizing hoarding, forbidding queues in front of stores, inducing trading houses to move their stocks onto the shelves, reserving the overseas buying of key commodities to government, and discouraging the smuggling out of Ghana of price-controlled items.

Frozen assets

The Government has frozen the assets of a number of firms pending investigation of charges of corrupt dealings with officials or politicians of the previous government. The assets of all companies operating automobile assembly plants in Ghana have been frozen, for example.

Certain contracts and permits awarded by the previous government to foreign firms have been abrogated on the grounds that they were improper or ill-advised. The new Government has furthermore recently announced that no government-owned entities may be sued for the abrogation of contracts concluded under previous governments, unless a waiver from Ghana's Attorney General is first obtained. Several U.S. firms have suffered inconvenience and loss from such unilateral actions.

Notwithstanding freezing of assets of certain firms and uncertainty of remittances of profits and dividends, the investment picture is not all negative. The Government has indeed recently reaffirmed its desire to see greater private foreign investment in Ghana in joint ventures. It continues to seek foreign capital to expand bauxite production, build an alumina plant, and to undertake the construction of a clinker plant based on local limestone to supply local cement plants. It also continues to encourage oil prospecting by foreign firms. None of the standing system of incentives for foreign investors, including tax holidays, has been curtailed.

The Government also apparently would continue to welcome private participation on a joint venture basis in certain existing state-held corporations which are not operating or which are operating well below capacity. Where the firm is doing relatively well, however, the Government will probably prefer to retain full Ghanaian ownership.

The main opportunities for U.S. business probably lie in planning to take advantage of possible economic growth two years from now and beyond. Ghana has the resources, the infrastructure, and the upper and middle level manpower to permit a satisfactory growth rate, to provide a growing market for U.S. exports, and to serve as a site for profitable private U.S. investment.

Ghanaian consumers are quality conscious and loyal to brand names. In the case of equipment, good maintenance service and spare parts availability reinforce product loyalty. Thus, although the Ghana market is contracting in 1972, goods introduced and established now will be in a better position to participate in resumed market growth later on. Indeed, most for-

eign firms with export lines already established in Ghana are extending themselves to maintain availability of goods and effective local representation.

In some cases competition among suppliers has actually increased in the hope of capturing an increased share of the market, which they would hope to maintain as it eventually expands again. In-house financing and the assumption of uninsurable export financing risks will sometimes give a supplier an important advantage. Barter deal proposals by private foreign firms may also get a hearing.

During the present import austerity, preference in granting licenses will go to two chief categories of goods. The first is key consumer import goods, of which rice and dried milk are the most important items in which the United States is competitive. The second is requirements for local production. These include replacement equipment and spare parts for factories, for transport and communications, and for power facilities. Local production will also require raw materials, such as unmilled wheat for flour mills, cotton for textile plants, tallow for soap factories, and chemicals for plastics factories and pharmaceutical plants.

Interest has cooled

Government procurement for new projects is likely to be slim during the next year. Previously announced Ghanaian interest in such big-ticket items as a satellite communications ground station, establishment of a government-owned charter airline for domestic service, and the purchase of aircraft for international routes has understandably cooled off, given the present payments problems.

However, there is official interest in rehabilitating or expanding facilities in the following fields: iron and steel foundry; screws, nuts, and bolts manufacture; soap; bricks and tiles; and corned beef and tomato canning. There is also interest in establishing a pulp and paper industry and an aluminum rolling mill.

GHANA NATIONAL TRADING CORPORATION—*Much of Ghana's trade is handled by this organization. Imports are down but may be booming in two or three years.*

A special field where U.S. firms might be able to develop new sales in Ghana is in consulting and management services. The present inclination of the Ghana Government is to use self-help insofar as possible, and to rely on foreign aid for such services not available in Ghana.

However, where U.S. firms can show how it would be possible to reduce costs and improve effectiveness of state corporations, specialized advisory services might be salable. The initiative would have to come from the U.S. firm and would require considerable on-the-spot expenditure of time in order to develop and negotiate a proposal. Ocean shipping, ship repair, civil aviation, and food preservation and processing are areas where U.S. consulting services might find a demand in Ghana.

Although no commercial quantities of petroleum have yet been found, exploratory offshore drilling is continuing in the concessions already assigned. All of these concessions are held in whole or in part by U.S. companies. The need for servicing facilities for offshore rigs and crews has already led to the establishment of Ghanaian subsidiaries by several specialized U.S. oilfield equipment and supply firms. The proximity of a relatively large oilfield support industry in nearby Nigeria, where major production is already in progress, offers competition, however.

Sourcing may shift

Although U.S. exports to Ghana declined from $58.9 million in 1970 to $54.8 million in 1971 and the U.S. share of the Ghana market also declined, the U.S. competitive position has been improved by devaluation of the dollar and restoration of regular shipping from the United States to West Africa following the U.S. Gulf and East Coast port strikes. With increased Ghana Government surveillance over import ordering, price advantages are likely to be given heavy weight; the sourcing, particularly for bulk commodities, may consequently shift rapidly.

Unlike most countries in Africa, Ghana does not discriminate in any way against imports from the United States. However, the forthcoming U.K. entry into the European Communities offers Ghana an opportunity to try to negotiate preferential access to the EEC market for its own products, since Ghana will be losing preferential access as a Commonwealth country to the U.K. market.

Fiji Shows Mixed Economic Signs In First Year Of Independence

Five major factors have affected Fiji's economy during its first full year of independence: a continuing boom in tourism, the steady growth of the economy, a severe setback in the copra industry, an ever widening trade deficit, and persistent inflation, notes the U.S. Embassy in Suva.

Tourism has pulled even with or even slightly ahead of sugar exports as Fiji's largest foreign exchange earner. As in past years the foreign exchange brought in by tourists has contributed greatly toward covering the country's large balance of trade deficit.

Generally the economy continued to grow: National Gross Domestic Product increased 12 percent and per capita GDP 10 percent. However, the copra industry, an important income earner for rural ethnic Fijians and the country's second largest export commodity, was plunged into a serious depression when the London buying price fell for fourteen months.

Inflation continues to haunt the economy. While some indicators suggest it may be slowing, the heavy demand for imported consumer goods, rising wages and production costs, and an overburdened construction industry have continued to force living costs upward.

U.S. has small role

The U.S. market share in Fiji is small, running to just about 4.4 percent, or $5 million. This is due in part to the two column tariff system which gives Commonwealth countries concessions ranging from 50 percent upwards on their goods. In addition, Fiji's major trading firms are Australian-owned and naturally look to that country or New Zealand and the United Kingdom for most of their products. Finally the relative lack of regular shipping from the U.S. West Coast and the much shorter shipping distances from Australia also work against U.S. suppliers.

On the other hand, the devaluation of the dollar has made a greater number of U.S. products potentially competitive on the Fiji market. In at least one recent case a U.S. manufacturers' representative who handles a broad line of consumer articles stated he could beat Australian prices despite the greater shipping and tariff costs.

The Government of Fiji has also indicated a willingness to reduce or totally eliminate tariffs on machinery and equipment imported to establish local industries.

With a large percentage of its population engaged in agricultural production at subsistence or low wage levels, Fiji's potential for sophisticated consumer items is limited to approximately 150,000 urban dwellers tied to a cash economy.

Items in demand

Processed foods are in demand by a much greater percentage of the population on a year round basis while temperate climate fruits and vegetables (particularly low perishable items such as onions, garlic and potatoes) have a large potential market, particularly during the Southern Winter (April-October). Considering Fiji's potential market, it would be the small and medium sized U.S. exporters who would probably find Fiji's market most attractive.

One of the largest U.S. exports, rice, will face increasing competition from local producers, and the United States can expect to lose a substantial share of this market, which accounted for 26 percent of U.S. exports to Fiji in 1970, by the middle of the decade.

The major U.S. export to Fiji continues to be machinery. The latest statistics available indicate that over one third of U.S. exports fell into this general classification in 1970, with internal combustion engines, parts and refrigeration components accounting for the largest part of that total.

Ninety-nine percent of Fiji's retail outlets are small family owned shops supplied by a handful of distributors, usually one of the large Australian trading firms or small manufacturers' representatives and agents.

Marketing as a concept is little

FIJI FAIR—*The United States has a small share of this market but the recent currency shifts should boost U.S. sales. Above, visitors at the 1971 Fiji Trade Fair.*

known in Fiji and even less frequently practiced. A clear reading of market demands, needs and potential, particularly for consumer goods, is therefore difficult to obtain or appreciate except through first hand observation.

Fiji continues to look to overseas investors to assist in developing its light industry potential. Primary emphasis is being placed on industries which supplant imports or establish an export potential. Tariff concessions and tax holidays are being offered to companies willing to develop industries of these types. One major project, the construction of a flour mill, financed with Indian capital, has begun. Hopes that a U.S. firm would establish an oil refining complex on the western side of Fiji's main island of Viti Levu have dimmed, owing to difficulties encountered by the company in putting together financing.

Work has been delayed

Work on the large Suva-Nadi road, originally scheduled to begin in March, has been delayed because tenders submitted by overseas contractors ran almost 100 percent above the $13 million loaned to Fiji by the World Bank for the project. The Government has gone back to the contractors for new bids and is also considering building the road with its own Public Works Department personnel and equipment. If Fiji carries out the project on its own it will take more time and require the acquisition of considerable equipment.

Fiji does a modest export business to other Pacific islands, primarily in cement and biscuits. Total 1970 exports to these markets were $6.7 million. The nations and territories of the South Pacific agreed in March to establish a Regional Trade Secretariat in Suva to stimulate and develop an island market trading community. Initial planning for the Secretariat has been completed but it will be several months at least before it begins operation.

Luxembourg, Set To Begin Recovery, Has Many Attractions For U.S. Firms

Luxembourg is headed for a mild but accelerating recovery during the second half of this year, predicts the U.S. Embassy there.

After the boom of 1969 and the average performance of 1970, 1971 was a year of quasi-stagnation for the Luxembourg economy. The growth of output of 0.7 percent was the lowest in the European Community. The small increase in construction (4 percent), nonsteel manufacturing (3 percent) and services (2.4 percent) was just about offset by declines in the steel sector (−4.0 percent) and agriculture (−3.0 percent). Production of steel amounted to 5.2 million tons, about 6 percent below the 1969 record of 5.5 million tons.

The fact that GNP did not decrease at a time when steel output declined is due in large measure to the success of government efforts to deepen and diversify the economy from exclusive reliance on steel by attracting new industries, largely American, in the chemical, tire and metal fabricating fields. However, even here, the depressed demand conditions in Luxembourg's European neighbors resulted in a falloff from the fast growth of previous years. The exception was metal fabrication where output grew by 11 percent due to new plants and expansion of existing ones. Growth in the construction industry benefitted from the 8 percent increase in investment.

Same stagflation

Luxembourg experienced the same stagflation as some of its neighbors, for despite the stagnation in production, inflation persisted. The average 4.7 percent increase in consumer prices, a postwar high, exceeded the 4.6 percent increase in 1970.

For the rest of 1972, foreign markets for products from the steel and new industries should strengthen. A 4 percent increase in real consumption expenditures is expected due to the militancy of unions in demanding higher wage increases, the reduced cost of bank credit and the large accumulation of consumer bank savings.

Unlike previous years, however, investment will not increase significantly. An increase in office and residential construction or outlays by new industries will be offset by decreases in steel industry investment resulting from the completion of a large part of its modernization program.

Finally, inflationary pressure should subside slightly.

The government's so-called "normalization" budget conforms to the non-inflationary guidelines of the European Community in that its outlays are close to previous levels and it is cyclically neutral. The Embassy expects overall real GNP to increase by 2.0 percent and consumer prices to rise by between 4.0 percent and 4.5 percent, a slight improvement over the respective 0.7 and 4.7 percent increases recorded in 1971.

Enviable statistics

However, even if the mild improvement is not realized, one should not exaggerate the consequences for Luxembourg. Even with stagnation in 1971, Luxembourg still boasted the highest standard of living in the Community, the lowest rate of price increases and an official unemployment figure of only 22.

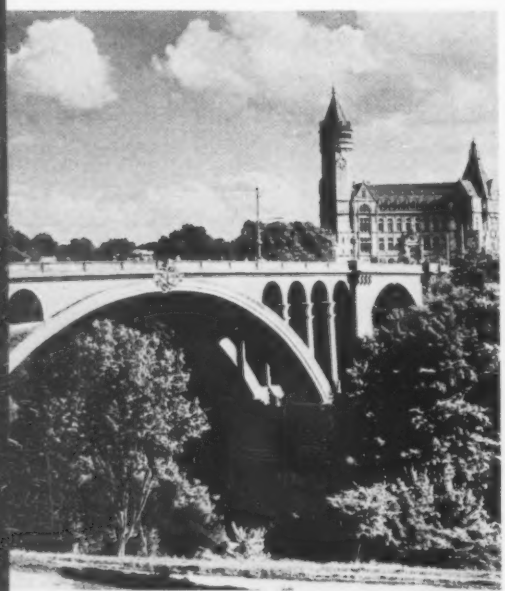
U.S. firms may wish to consider Luxembourg as a small but stable outlet for U.S. exports, a place for pilot marketing projects, and a distribution center for the European market.

Luxembourg's small population precludes it from becoming a large market for U.S. exports. Never-

theless, its stability offers opportunities for steadily profitable business. The small share of the market (3 percent) held by U.S. exports offers expansion opportunities. Exporters should consider establishing direct relationship with Luxembourg distributors or importers, thereby doing away with such non-Luxembourg intermediaries as third-country importers.

Ideal place

Luxembourg offers an ideal place for U.S. companies to begin penetrating the European market with new consumer products. Luxembourg is a compact country, boasts the highest standard of living in the European Community, attracts customers from neighboring countries and has a cosmopolitan population consisting of native Luxembourgers, frontier Belgians, French and German workers, Southern European immigrant laborers, civil servants attached to the European Community and businessmen and bankers from the United States and Europe. Experience gained here in pilot marketing projects can be used to penetrate larger European markets.



LUXEMBOURG CITY—*Shown are the Adolphe bridge and the State Bank. Luxembourg is a small but stable market.*

This is also a propitious time for marketing new products because it coincides with the expected recovery in Luxembourg's economic activities and the improvement in the competitive position of U.S. goods arising from recent changes in currency parities. Marketing campaigns are suggested for textiles, apparel and appliances.

With its good communication network, an improving road network and a developing air cargo service, Luxembourg should be considered as a possible inland distribution point for U.S. companies. Its local market area, which includes the French Lorraine, German Saar and Belgian Ardennes areas, has a population of about 5 million. On a more ambitious scale, it is ideally suited for penetrating the whole French, German and Benelux markets.

Aggressive marketing needed

Aggressive marketing by machinery and other equipment manufacturers can help dispel the notions that (1) even with devaluation U.S. capital goods are always more expensive than European or Japanese products, and (2) due to distance, deliveries of initial equipment and spare parts are prohibitively expensive and unreliable as to arrival dates.

Both the Luxembourg steel industry, the 16th largest in the world, and new U.S. industries undergo frequent modernization and expansion programs. Also, certain large projects are undertaken periodically by public service industries. The Government is considering construction of a nuclear power plant on the Moselle as well as a small oil refinery with a capacity from 3 to 5 million tons. Luxair, Luxembourg's national air carrier, is still considering standardizing its transportation fleet by purchasing four medium-size aircraft.

Luxembourg is in the midst of a 15-year road building program designed to improve connections with its neighbors (Belgium, France and Germany) and to modernize its urban road network.

Luxembourg has the highest American overseas industrial investment per local inhabitant of any country—more than $700 per Luxembourger with total investment of $250 million.

American companies are attracted to Luxembourg by its political stability, location, industrial tradition, excellent labor relations, friendship for Americans and membership in Benelux and the Common Market. In addition, U.S. firms come in response to the government's infrastructure and incentive programs.

Incentives can be granted

Although the investment law, which expired in 1971, has not been renewed yet, incentives can still be granted through stop-gap measures. However, the public policy of the Government is to encourage only capital intensive, environmentally acceptable and technologically advanced investments.

Luxembourg may be the fastest growing financial center in the world. Since 1960, the number of banks have grown from 19 to 47. Of these, eight banks are owned partially or completely by U.S. interests. The banks have been drawn to Luxembourg by banking laws which allow them to perform a whole host of services required by multi-national corporations and by the fact that operating costs are less than in other financial centers.

Doubt has been expressed about the future of Luxembourg as a financial center following accession of the United Kingdom to the Community. The Embassy believes that although Luxembourg is too small to ever rival London in size, it will adapt to any change in the situation and thereby will continue to thrive in that area where it has expertise—holding companies and long-term Eurofinance. American financial firms wishing to participate in the Euromarket should consider setting up their principal or auxiliary operations there.

Confidence Is Returning To Jordan, Improving Environment For U.S. Sales

After nearly a year of stability following the serious 1970-71 internal disorders, the business and economic mood in Jordan is gradually improving, according to the U.S. Embassy in Amman.

Political repercussions to clashes between the Jordanians and the Palestinian fedayeen delayed the upturn in business and industry anticipated a year ago. Syria's closure of the border in July, in particular, caused a reduction of goods in the marketplace, fresh caution in private spending and investment, increased prices, and the loss to Jordanian exporters of the European and northern Arab market. It dealt a severe blow to the Jordanian economy from which recovery began only in the spring of 1972. Adjustments are continually being made to counter the border closing, and in recent months the Syrians have eased their restrictions.

Although overall import activity is high, market sales and turnover are only moderate. The country is in the fourth year of an inflationary cycle that has been driving up official cost-of-living indices 6 or 7 percent annually. While summer harvests may cause food prices to level off for a while, the overall inflationary spiral will probably continue at the recent pace.

The industrial picture is not exciting, with local investors reluctant to take much medium or long-term risk and not completely happy at facilities offered by the Government. Urban construction has entered an upward trend that should continue. GNP has come back up to the 1969, pre-crisis level.

Government finance remains a problem area but, thanks to extensive budget support from the United States and Saudi Arabia, is manageable. The long-delayed 1972 budget gives proper emphasis to development, and in fact the Government is mounting an intense effort to regain a semblance of the development thrust that characterized Jordan before the June 1967 war. A three-year development plan will be inaugurated in a few months, focused on agriculture and industry and intended to attract greater assistance from foreign donors.

More competitive

Revaluation of the dollar and closure of the Syrian border combined with a 20 percent penalty on goods imported other than via Aqaba have made U.S. goods more competitive. As the dinar remains keyed to the dollar, most European goods are more expensive to purchase. With the Suez Canal also closed, European orders must enter Jordan via Aqaba after traveling a distance nearly as long as that for goods shipped from U.S. Eastern and Gulf ports.

An immeasurable psychological factor making U.S. products more competitive is that there is a desire on the part of many Jordanian merchants to import from the United States if total price is competitive or even slightly higher. This desire comes from the knowledge that U.S. products are generally superior and from the aura created by U.S. support for Jordan—financial, military and political.

These changes have already led to increased inquiries about doing business with the United States. Food and agricultural products, farm machinery, fertilizers, insecticides, and industrial machinery have attracted the most interest so far. Pharmaceuticals might also find a favorable market.

The United States had approximately 23 percent of the Jordanian market during 1971, the largest share in recent years. If American firms take interest and capitalize on the favorable factors mentioned above, this percentage (to which "one-time" jet aircraft sales made a 7 percent contribution difficult to repeat) could be attained regularly, indeed, surpassed.

There are no barriers confronting U.S. products although there are regulations which provide some protection for local industry. Even some of these regulations were

PEACE AND SECURITY RETURN TO JORDAN—*The economic and business mood is gradually improving. Above, a view of the area of foreign embassies in Amman.*

eased during 1971, although tariffs on foreign imports remain high—for example, a 200 percent customs tax is imposed on imported clothing.

Peace and security have returned to Jordan, making this country perhaps the most stable nation in the Eastern Arab World. Confidence is slowly returning, and is as essential as anything in achieving a definite improvement in the country's economy.

U.S. can take advantage

The United States can take advantage of the improving Jordanian market. It is a small market where large profits can not be realized quickly. However, investment should realize profits over the long haul. Naturally, if there is a peaceful settlement of the Arab-Israeli conflict, there will be increased opportunities for American business, particularly in tourism.

The only major tenders presently on the horizon are for extension of the Zarqa refinery, on which no American firms submitted bids (European-based subsidiaries of U.S. companies did bid), the World Bank-financed school program, and a possibility that the Jordan Army may replace a significant portion of its rolling stock.

Opportunities exist for American investment and construction in the tourist field, where Jordan has extensive plans to develop the Aqaba area and other historical sites such as Petra, Azraq, Jerash and the Dibbin National Forest. The Jordanians are interested in attracting investment for development of these areas and in attracting hotel companies and other tourist related enterprises to erect facilities.

There is also opportunity for large-scale construction of low-cost housing, and pre-fab dwellings may have a market. Housing has been a chronic problem, and the Jordanians are searching for a means of coping with it.

Cypriot Economy Bounces Back To Bumper Growth

The Cypriot economy has bounced back to bumper growth after its sluggish performance of 1970.

Production in the agricultural sector in 1971, recovering from the drought of the previous year, increased by more than 8.8 percent in value over 1970. Recovering from the political tensions of 1970, the number of tourists registered a tremendous 40.2 percent increase. Fired by the success of these two sectors and maintained by more normal increases in others, the island's GNP moved ahead in 1971 by a respectable 7.9 percent at constant 1958 prices, compared with 1970's growth of only 4.5 percent. The economy is continuing to perform well in 1972, according to the U.S. Embassy in Nicosia.

Tendency to overheat

A tendency to overheat was evidenced by increases in the money supply of 9.8 percent, and in the amount of domestic credit outstanding for the year of 11.4 percent. Public debt was, in fact, reduced by 6.2 percent. Heavy capital inflows contributed to a balance of payments surplus and foreign exchange reserves of $276 million by the end of 1971, an increase of 76 percent over 1970.

These factors continued to put pressure on the retail price index, which rose by 4.1 percent. There was also a continued decline of the balance of trade, stimulated by renewed consumer demand. Inflationary pressures in Cyprus' major trading partners were felt through their exports to the island; on the other hand, imports also acted as a safety valve for home-generated inflationary pressure.

The Government took its first steps with the Commission of the Common Market to reach an association agreement. Two meetings in early 1972 brought out an EEC offer of a 70 percent preference for Cypriot industrial exports and a 40 percent preference for Cypriot citrus, as well as preferential treatment for carobs, in return for a 35 percent preference for a wide range of EEC exports to Cyprus. Cyprus will try for even better terms, particularly for the island's other agricultural exports.

The effect of 1971's international monetary instability on the Cyprus economy was softened by the island's close trading ties with the United Kingdom and the European continent. The Cyprus pound maintained its par value with gold, allowing the dollar to depreciate by 8.6 percent. Thus far, there has been little evidence of price changes in the island's imports (except for major items, e.g. automobiles), as importers either took marginal losses or reaped profits within the existing price structure. Trading patterns have remained relatively stable. This should gradually change over the next years.

The third Five-Year Plan began this year. The new plan is marked by a shift in emphasis from development of import-substitution to export-oriented industry, and the development of a position as the region's re-exporter. Several major public works projects and private initiatives will begin, including a hospital, government buildings, a mountain recreation area, several large hotels, and others, including eventually a large desalination project.

Good agricultural year

Notwithstanding the low rainfall over the season—about 50 percent of annual average—1972 will also be a good agricultural year.

Though 1971 was relatively quiet in the labor sector, the first quarter of 1972 saw considerable unrest as several major contracts came up for negotiation in the industrial and service sectors. Wage demands have been far in excess of expected increases in productivity, thus

lending additional force to inflationary pressures. Finance Ministry officials expect the retail price index will rise over the year by 4 to 5 percent.

The trading and investment climate in Cyprus remains generally favorable. The Government favors a multilateral trade policy, though much of its trade with Eastern Europe is carried on through bilateral agreements. Commonwealth preference, the government's aspirations to the Common Market, and a propensity to protect local industry are exceptions to this policy. Prospective foreign investment is attracted by a program of incentives, including free entry of capital goods, tax benefits, etc.

Cyprus is a member of the sterling area and maintains full convertibility with the pound sterling. Though movement out of the sterling area is governed by exchange controls, they are liberally administered.

A double taxation agreement was recently negotiated between the United States and Cyprus, and will hopefully soon be in force.

Future Favorable For Trinidad And Tobago Economy

The economic outlook in Trinidad and Tobago is favorable. The U.S. Embassy in Port-of-Spain reports that expansion of petroleum output is expected to stimulate activity in other areas of the economy.

Trinidad and Tobago's real growth continued low in 1971 despite massive investment in the petroleum sector, mainly because of a very large foreign trade deficit. In January 1972 new offshore crude oil production began which should redress the trade balance in the near future.

A proposal to develop offshore natural gas for shipment to the United States in liquefied form was presented to the Government early in 1972. If this longer term project goes ahead, the combined oil and gas boost to the economy will be tremendous. Other offshore acreage may also contain commercial hydrocarbon deposits.

However, aside from this bright spot, the important agriculture sector faces serious difficulties, unemployment will continue to be a major economic and social problem, and a modest inflationary trend has begun.

High liquidity in the banking system, resulting from an increase in deposits and in the money supply generally, provides a potential base for expansion in manufacturing if domestic investors regain sufficient confidence to take advantage of the opportunity.

Small debt burden

Public debt is increasing but not alarmingly, and the foreign debt is relatively low partly because Trinidad and Tobago has not had to rely on as high a level of foreign assistance loans as many other countries.

While trade is in temporary severe imbalance, international payments are not in real difficulty.

The outlook for U.S. interests is also promising. Trinidad and Tobago is evolving a more nationalistic petroleum policy, in keeping with international developments in this area. But the terms are still attractive enough to many international petroleum and petrochemical companies, mostly American, for them to make multi-million dollar investments in the country.

Outside petroleum the Government also welcomes foreign investment, within a framework of increasing local private or public participation, and offers various incentives to this end. Labor intensive industry is especially welcome.

Localization of commercial banks, until recently all foreign-owned, began in earnest early in 1972. Perhaps the most visible problem for foreign investors is the government's use of work permits to press for more rapid replacement of foreign staff by nationals than many companies consider desirable.

On the trade side, American exporters face some barriers, including protection of domestic production through a growing Negative List. Nevertheless American products are in wide demand. Specific export opportunities are identifiable in petroleum, tourism and shrimping, and the expected growth acceleration will provide many more in both consumer and capital goods. Potential sales of American LNG equipment and tankers costing $400 million deserves special mention, particularly for the offsetting effect they would have on the cost of importing the gas into the United States.

There is likely to be an upsurge in imports of capital and consumer goods. American products are widely accepted in Trinidad and Tobago. The United States is the nearest industrialized country. American exporters should be able to meet many of the increased demands in coming years.

PT. LISAS, TRINIDAD—*This plant of a W. R. Grace & Co. affiliate produces ammonia for export and local use.*

World Trade Actions

French Moves Liberalize Exchange Control System

France: With currency exchange markets relatively stable and the nation's balance of payments in equilibrium, the French Government on May 7 published a Decree, an Order, and nine Circulars liberalizing several aspects of the exchange control system. The changes include:

(*1*) Effective from the date of publication, the range of foreign currency transactions to be effected in the "official exchange market" is expanded to include not only those pertaining to trade, related services, and current government transactions (as previously), but also all current "invisible" transactions except tourist expenditures, remittances by foreign workers, and transactions in French and foreign banknotes. In addition to these latter categories, the "financial franc market" continues to handle all capital transactions, payments and receipts of interest and dividends, and personal transfers such as pensions and social security payments. This dual exchange market system was introduced last August.

(*2*) Non-resident travelers leaving France are now authorized to take the equivalent of 3,500 francs (approximately $680) in foreign banknotes, up from 500 francs.

(*3*) Prior declarations to the Ministry of the Economy and Finance are no longer required for outgoing direct investments not exceeding one million francs (approximately $195,000) per year, except for those concerning holding, investment, or portfolio companies.

(*4*) Compliance with exchange controls by selected importers and exporters will henceforth be verified by computer by the French Customs Bureau rather than the French banking intermediary.

The full texts of these announcements are available for ten cents plus postage by writing to Journaux Officiels, 26 rue Desaix, 75 732 Paris Cedex 15; ask for Textes d'Interet General no. 72-89 of May, 1972, entitled *Relations Financieres avec l'Etranger—Modification de la Reglementation.*

The British Government announced on June 23 that support for sterling was withdrawn and the pound was allowed to float. The official announcement labelled the action as a temporary measure and indicated the government's intention to return "as soon as conditions permit" to the maintenance of normal IMF margin around parity. At the same time, exchange control was extended to capital transactions by U.K. residents with the overseas sterling area (except the Irish Republic) as a precaution against fresh speculative outflows of currency.

Italy: By an April 19 Ministerial Decree a number of new substances were made subject to the Law on Narcotic Drugs, to be effective July 17. The substances covered are: DET, DMHP, DMT, parahexyl, STP, tetrahydrocannabinols, amphetamine, dexamphetamine, methamphetamine, methylphenidate, phencyclidine, and phenmetrazine. Copies of an informal translation of the Decree are available from the Western Europe Division, BIC-888, U.S. Department of Commerce, Washington, D.C. 20230.

Ghana: U.S. exporters of goods to Ghana should be aware that as of May 12, all commodities imported into Ghana are subject to pre-shipment inspection for quality, quantity and price comparison by Superintendence Company in the country of shipment. Banks in Ghana are not allowed to make payment for landed goods unless the documents presented for payment include a *Clean Report of* Findings issued by the Superintendence Company. (The Superintendence Company, Inc., maintains offices or agents in all U.S. port cities.)

Copies of the implementing legislation, Commercial and Industrial Bulletin No. 44 are available upon request from the Africa Division, BIC-884, U.S. Department of Commerce, Washington, D.C. 20230, (202-967-2436).

Ivory Coast: A summary of the 1971-75 Ivory Coast Development Plan is available in English at a cost of 500 C.F.A. francs ($1.80). Copies may be ordered directly from the Ministère du Plan, Secretariat de Diffusion des Etudes, B.P. 649, Abidjan, Ivory Coast or from Service d'Information et d'Action Economiques de la Cote d'Ivoire, 24 Blvd. Suchet, Paris 16^{e}, France. Payment should be in C.F.A. or French francs. Special order blanks are available from Africa Division, BIC-884, U.S. Department of Commerce, Washington, D.C. 20230.

South Africa: The Director of Imports and Exports has announced a temporary ban on imports of shock absorbers into South Africa. These imports will be prohibited until the Board of Trade and Industry makes its decision on an application by three South African manufacturers to increase the duty on shock absorbers from 20 percent of the f.o.b. value to 150 cents per kilogram on shock absorbers weighing 2 kg. or less, and 100 cents per kg. on shock absorbers weighing more than 2 kg. No

indication has been given as to when this decision will be made.

Bangladesh: The Government issued its first import policy May 5, covering the period January-June 1972. All imports require an import license which is valid for a period of six months from the date of issue (twelve months for import of machinery parts and accessories). Items not specifically listed on Bangladesh's permissible import list may not be imported unless authorized. Imports of luxuries, including cars, domestic air-conditioners, refrigerators, some small electrical appliances and articles of personal adornment generally are banned. Imports will be allowed against free foreign exchange or against loans, credit and barter, subject to availability of funds.

Goods may be imported by industrial importers, commercial importers, and actual users. An industrial importer is an industrial unit registered as an importer under the Registration (Importers and Exporters) Order of 1952, as adopted in Bangladesh. Industrial consumers normally will be allowed to import their requirements of raw materials and spares up to 100% of their half-yearly entitlement, which is determined by the Controller of Imports and Exports on the basis of production requirements.

A commercial importer is a person, group, institution or organization registered as an importer under the Registration Order of 1952. No commercial importer will be issued import licenses for more than one item, unless already registered for more. In no case will commercial importers be issued licenses exceeding Taka 20,000 ($2,747).

Actual users are those persons, groups, institutions or organizations which import goods for their own use. Actual users may import scientific, technical and text books; laboratory glassware; electromedical apparatus and appliances; scientific instruments, apparatus and appliances; optical instruments; homeopathic and biochemic medicines; x-ray films and plates; and artificial limbs and hearing aids.

Imports of sulphur, aluminum, zinc, and lead ingot; copper rod and ingot; art silk yarn; mercury; raw rubber; betelnuts; M.S. billets; steel strips; pig iron (foundry grade and coke variety); sugar; coal; soda ash; caustic soda; cotton yarn; cement; tobacco for cigarette industry; cast iron sheet; and wood and timber are restricted to the Trade Corporation of Bangladesh, the Government's state trading agency. Another set of items, including raw cotton, edible oil and oil seed, x-ray film and plates, pharmaceutical raw materials, coconut oil, tallow, milk food, commercial vehicles, motor cycles, bicycles, and stearine and wax can be imported by both private importers and the Trade Corp. Private importers may enlist the assistance of the trade corporation to import any other goods for them.

For specific information on Bangladesh's import policy, write to Near East-South Asia Division, BIC-896, U.S. Department of Commerce, Washington, D.C. 20230. Please include the Brussels Tariff Nomenclature, the U.N. Standard International Trade Classification, the U.S. Schedule B export commodity number or a complete product description with requests.

U.S., Venezuela Agree To Extend Trade Agreement

The United States and Venezuela have exchanged notes to regularize the situation following Venezuela's notice of termination on June 30 of the Reciprocal Trade Agreement between the two countries.

Petroleum tariffs will be maintained at their present low rate. At the same time, the most favored nation principle is reaffirmed, although an exception is made in the event that Venezuela should desire to enter into free trade pacts or customs unions.

UNCTAD III May Boost Developing Nation Trade Role

The Third United Nations Conference on Trade and Development, held in Santiago, Chile, has ended after five weeks of debate.

Important results of UNCTAD III include: agreement on the principle of greater participation by the less-developed countries in monetary reform discussions; a more favorable allocation of future special drawing rights to the less developed nations by the International Monetary Fund; agreement that the interests of developing nations merit special attention in the multilateral trade negotiations scheduled to be held next year under the General Agreement on Tariffs and Trade, and the need for special measures to assist the least-developed of the developing countries.

Recurrent theme

One of the recurrent themes of the conference was for greater participation by the developing countries in the decision-making process on international economic issues.

Many developing nations expressed concern about the activities of multinational corporations, and their impact on the development process. They stated that net financial outflows from their countries due to foreign investment were high, and were critical of the restrictive business practices of multinational corporations.

Representatives of developing countries also urged a much greater transfer of technology from industrialized to developing countries on more favorable terms than at present.

The United States endeavored to play a constructive role at the Conference by working with the developing countries to achieve consensus on key resolutions.

International Business Reports

The United States and the Industrial World. By William Diebold, Jr. 463 pp. $13.50.

This book, a valuable addition to the literature on international commercial and financial policy, should be useful to student and businessman alike. It outlines the problems that confront the United States in its conduct of foreign economic policy today and describes their genesis, in most cases, a quarter of a century ago.

Although he prescribes the retention of certain standards of the past, including management, cooperation, and liberalization, Diebold presents no sure-fire panacea, recommends no hard-and-fast guidelines for solution of these problems. Instead he asks whether the best answers are to be found in approaching each of them as part of an orchestrated plan or on an ad hoc basis, and whether the tenets underlying their solution are to be inward or outward-looking. Perhaps another way of framing the same question is to ask whether the United States in its long-range self-interest is to regard other economically advanced nations primarily as trade rivals or as trade partners.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

Federal Republic of Nigeria Second National Development Plan 1970-74, First Progress Report. Published by The Central Planning Office, Federal Ministry of Economic Development and Reconstruction. 327 pp. $2.

Analyzes performance of the Nigerian economy during the first half of the Plan period, compares Plan forecasts with current economic indicators, using sectoral approach, and reports on status of individual projects.

Write: The Central Planning Office, Federal Ministry of Economic Development and Reconstruction, Lagos, Nigeria. A limited number of loan copies are available from Africa Division 884, Department of Commerce, Washington, D.C. 20230.

Economic Independence and Zambian Copper. Edited by Mark Bostock and Charles Harvey. 274pp. $18.50.

Analyzes the 1970 government takeover of Zambian copper and its effect on the drive for economic independence, the mining industry and private shareholders. The development of mining and its role in Zambia is reviewed, post-takeover changes in the industry, new tax laws, and new mining investments are described, and future trends are projected. The Zambian experience is compared with that of other mineral-rich developing nations.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

Investment Abroad is Investment in America. Does Foreign Investment by American Companies Threaten American Jobs? Published by Business International Corp. 50¢.

These publications, a 16-page brochure and a 6-page question and answer pamphlet, discuss the effects of U.S. business investment overseas on American employment and exports. The brochure highlights findings of a study among 86 multinational corporations with annual sales of $85 billion. The principal finding is that the greater the intensity of investment abroad, the greater the rate of growth of U.S. employment and exports. The question and answer pamphlet highlights the study's findings in simple layman's terms.

Write: Business International Corp., 757 Third Ave., New York, N.Y. 10017.

Trade With China. Published by the American Management Association. $7.50.

The latest in the current series of AMA Research Reports deliberates questions about trade with China still in the decision-making stage in most companies. Based on findings resulting from a questionnaire survey of 283 U.S. businesses that engage in direct international trade, this publication indicates that most firms have adopted no formal policy, but nearly all questioned favor both direct sales of U.S. goods to China and purchase of Chinese goods or materials for use or resale in the United States. Only three of the companies in the survey oppose U.S. trade with the Chinese. Also, among 271 companies responding, only 56 have given the matter no consideration at all.

Write: American Management Association, 135 W. 50th St., New York, N.Y. 10020.

Calendar For World Traders

July 11 — Chicago — International trade meeting, Field Office.

July 12—New York—Seminar on new Federal and New York State DISC regulations and rulings. Sponsors: International Executives Assn. and International Tax Institute.

July 13—Nashville—Plenary meeting, Mid-South REEC, Hilton Airport Inn.

July 18-19—Chicago—Briefing on making maximum use of DISC, AMA Management Center.

July 19—Chicago—Midwest Credit Management Assn. international meeting.

July 25—Chicago—Harold Lucius, Commercial Attache, Bangkok, available for consultation.

Aug. 8 — Chicago — International trade meeting, Field Office.

Aug. 8—Chicago—Midwest Credit Management Assn.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine. The section that follows presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and appoint agents, details on major construction and expansion projects, and notices of U.S. visits by foreign buyers.

U.S. Promotions Overseas

BRAZIL-VENEZUELA. Hospital Medical Equipment Mission-Seminar. Approximately 12 industry representatives and 4 prominent speakers will participate. In both countries, ministries of health, social security, public works, and the military are embarked upon multi-million dollar hospital and health facility expansion and modernization programs. As there is very limited local manufacture, annual imports are high. Venezuela is importing some $13 million and Brazil almost $20 million. Combined equipment needs of these countries, over the next five years, are forecast at over $500 million. Call Lee Carteron, 202-967-2051. Caracas, Sept. 11-13; Rio, Sept. 14-18; and Sao Paulo, Sept. 19-22.

FRANCE. Medical Diagnostic and Monitoring Equipment. Under the French Government's Five-Year Development Plan, new hospital construction and modernization of existing facilities will require purchase of considerable quantities of the latest diagnostic and monitoring equipment. The medical electronics market in France is projected at about $120 million by 1975. Call Don Johnson, 202-967-2795. Paris Trade Center, Sept. 18-22.

JAPAN. Vacuum and Cryogenics Equipment Exhibition. Increasing demand for U.S. high vacuum and cryogenics equipment and technology in the medical, electronics, biological and food preservation industries is predicted for Japan. Moreover, the Japanese Government is putting large sums of money and effort into aerospace and oceanography, industries which utilize high vacuum and cryogenics equipment. Market research reveals a continuing need for such equipment. Call Bill Dawson, 202-967-4919. Tokyo Trade Center, Sept. 18-22.

UNITED KINGDOM. Materials for the Electronics Industry. The final Kennedy Round tariff reductions and Britain's eventual entry into the Common Market are causing significant structural changes within the electronics industry. To remain competitive in domestic and foreign markets, electronics firms are upgrading their R&D programs and actively seeking new production techniques, materials, and applications. Consumption of electronics materials reached an estimated $160 million in 1970 and is projected to increase substantially in the next four years. Call George Kemp, 202-967-3088. London Trade Center, Sept. 18-22.

BAHAMAS, HAITI AND SANTO DOMINGO. Hotel and Catering Equipment Trade Mission. Sept. 19 to 29. A steadily expanding tourist industry provides American firms unique sales opportunities for the following product categories: Air conditioning, food service, janitorial, grounds keeping, laundry and dry-cleaning, leisure time, security, and office machines. Call Andre Williams, 202-967-4228.

GREECE, ISRAEL AND CYPRUS. Tourist Industry Services and Equipment Trade Mission. September. Growth of Israel's tourist industry has been called "stupendous" by its Ministry of Tourism, while tourist population in Greece is expected to equal the country's own population within this decade. Cyprus too has been capitalizing on its Mediterranean location to earn foreign exchange. Needed are labor-saving devices for the service industries, franchising operations, all types of recreation equipment plus the know-how to build, operate and manage tourist facilities. Call Fred E. Crosley, Jr., 202-967-2232.

ITALY. Plastics & Plastic Processing Equipment. Italy, the second largest plastic producer in Europe and one of the world's fastest growing consumers of plastics, is hosting the world's second largest plastics exhibition, a key vehicle for entrance into the entire European plastics market. Italian consumption of plastics has been growing at an average annual rate of 20 percent for the last five years; this is expected to continue. Call Robert Wallace, 202-967-4508. U.S. Commercial Exhibition, PLAST '72. Milan, Oct. 8-15.

UNITED KINGDOM. U.S. Packaging Exhibition, PAKEX 72. British consumption of packaging machinery and equipment was $81.5 million in 1970; by 1975, it will be an estimated $112 million. British imports of packaging machinery in 1970 totaled $31.9 million, of which $8.3 million came from the United States. British demands will increase rapidly for sophisticated, high-speed machinery. U.S. equipment is well regarded. Call Bill Gaines, 202-967-4073. PAKEX 72, Oct. 9-13.

WEST GERMANY. Analytical Instruments. The outlook for the German chemical industry is for 70 percent growth in production by 1975. The $35 million market for analytical instruments has doubled in volume since 1968. Expenditures for R&D continue to keep pace with industry growth. Outlays by the chemical industry currently account for an estimated 30 percent of R&D expenditures by all German industry. Call John R. Crown, 202-967-4421. Frankfurt Trade Center, Oct. 9-13.

ITALY. Metals, Metal Processing and Production, and Technical Metallurgy Equipment. Italy's 1972 market for this equipment is valued at $273 million and domestic producers are expected to satisfy less than half. Consequently, technologically advanced and other locally unavailable equipment and supplies will be imported. U.S. high technology equipment and materials are considered by most Italian experts to be 5-7 years ahead of most available products and are therefore in high demand. Call Gus Duda, 202-967-2434. Milan Trade Center, Oct. 10-14.

ARGENTINA. Instrumento Expo-72. This will be an instrument and systems exhibition. Featured equipment will include industrial process, analytical, and electro measuring instrumentation. Argentina's imports of instruments and systems reached a record $19 million during 1971, with U.S. suppliers accounting for some 50 percent. By 1975, import demand is expected to double, as local producers will still be unable to produce sophisticated instrumentation required by Argentina's rapidly growing process industries; total instrumentation sales, including imports, should surpass $46 million by 1975. Call Franc Manzolillo, 202-967-3752. U.S. Regional Trade Center, Buenos Aires, Oct. 16-20.

FRANCE. Material Handling Equipment. The market for this equipment in France is estimated at $605 million. Sales over the past three years have shown a consistent annual increase of not less than 10 percent, with some categories registering gains of 30 to 50 percent. The Sixth Economic Plan for 1971-75 estimates an average annual increase of 13 percent during the period. Domestic production will not fully satisfy this demand. France relies on imports for about 20 percent of total consumption. Call John L. Wolf, 202-967-4974. Paris Trade Center, Oct. 16-20.

MEXICO. Graphic Arts Machinery and Equipment Exhibition. The printing and graphic arts industry in Mexico is upgrading its capabilities and looks to the United States as the primary source for new equipment. U.S. sales were $8.8 million in 1970, and rose 10 percent in 1971. A wide range of equipment will be featured at this event in the most

important Latin American market. Call James L. Blow, 202-967-4311. Mexico City Trade Center, Oct. 16-20.

SWITZERLAND. Nuclear Equipment. The application of nuclear technology for industrial, medical and scientific purposes is one of Switzerland's fastest growing and most promising fields. As commercial applications of nuclear technology become more widespread, the market for nuclear equipment and instruments will expand. Sales of nuclear equipment are rising as the industrialized countries of Western Europe expand their activities in this field. Call John Wolf, 202-967-4974. U.S. Commercial Exhibition, NUCLEX '72, Basel, Oct. 16-21.

VENEZUELA. Advanced Business Machinery. Venezuela, with a $10 billion GNP and a 6 percent annual growth rate, is one of the leading Latin American markets for U.S. equipment. Demand for business machines is high. The U.S. share of the market for EDP and other business machines is 35 percent and is expected to keep pace with market growth of about 12 percent annually. The Venezuelan liquidity position is good. Call Porter Clary, 202-967-4652. U.S. Solo Exhibition, Caracas. Oct. 24-28.

SCANDINAVIA—Sweden, Denmark and Norway. Food Processing and Packaging Machinery and Equipment Trade Mission. Oct. 30-Nov. 10. These countries appear to be good prospects for modern automated equipment, especially in the processing and packaging of meat for export and of specialty and convenience foods, which are the fastest moving sectors of the Scandinavian food market. Membership will be limited to 12 U.S. firms. Deadline for application is Sept. 1. Call Wanda Ale, 202-967-3905.

CZECHOSLOVAKIA, POLAND AND AUSTRIA. Environmental Protection Seminar and Trade Mission. October. A convening of environmental experts in Czechoslovakia will afford American companies excellent opportunities to respond to invitations from that country's government and thereby make contact with influential engineers and purchasing authorities. Poland is now doubly important owing to its role as coordinator of the Comecon pollution protection efforts. Austrians, moreover, are buying now! A special U.S. delegation will accompany the mission to Czechoslovakia where members of the mission will also be called upon to present papers. Call Fred E. Crosley, Jr. on 202-967-2232.

USSR, CZECHOSLOVAKIA, HUNGARY, POLAND, YUGOSLAVIA. Automotive Service Equipment Trade Mission. October. The automotive industry is one of the fastest growing in the USSR, enjoying top priority in the current five-year plan. This mission will begin basic relationships and pinpoint the specific equipment mission members and the colleagues should exhibit in the May-June '73 Autoservice Exhibition in Moscow. Two of the other countries are automobile producers and two enjoy a large wheeled tourism requiring improved servicing facilities. Call Richard Eisenmann, 202-967-2396.

AUSTRALIA. Electronic Components Measuring and Test Equipment. Electronics is one of the prime markets in Australia, averaging 10 percent growth per year. The import market is currently $100 million annually. The recent announcement that color TV is to be introduced in 1975 offers U.S. manufacturers of broadcasting equipment and test and measuring equipment additional sales opportunities. Call John Klingelhut, 202-967-5751. Sydney Trade Center. Nov. 6-10.

SCANDINAVIA. Metal Parts Production Equipment. Metalworking is Sweden's largest industry. This manufacturing group has grown faster than any other in Sweden. Expanded U.S. exports are possible, because Sweden's metalworking industries are continuing efforts to achieve greater efficiency, supported by current investment in new metal parts production equipment estimated at $93 million. Related Swedish import duties average only 5 percent ad valorem; the 7.5 percent revaluation of the krona vis-a-vis the dollar will further improve the competitiveness of such American goods. These factors should boost the U.S. share of this $60 million import market, to which American equipment manufacturers supplied goods worth $10 million in 1971. Call Robert Dormitzer, 202-967-3848. Stockholm Trade Center, Nov. 6-11.

FRANCE. Design Engineering-Industrial Components and Subassemblies. The automotive, aerospace, construction, fabricated metal machinery and instruments industries will constitute the key buying audience for this show. The total French market for all types of U.S. design engineering parts and components is estimated at over $165 million. The automotive and aerospace industries alone offer a market for this equipment that is growing by 10 to 20 percent per year. Call R.B. Wallace, 202-967-4508. Paris Trade Center, Nov. 13-17.

UNITED KINGDOM. Electro-Optics & Laser Equipment. Opportunities are increasing for U.S. suppliers. Equipment demands for R&D applications are growing, but even bigger gains, and the best opportunities for U.S. companies during the next several years, are appearing in industrial sectors. Market size estimates range as high as $10 million by the end of 1972, with growth estimated at 15-20 percent or more. Call your nearest U.S. Department of Commerce Field Office. London Trade Center, Nov. 13-17.

JAPAN. Industrial Assembly Equipment and Supplies. Japan's "recession" is bottoming out and business activity gradually picking up. The ceiling on loans for import financing was raised on April 1 from 20 percent to 50 percent, in effect making it easier for Japanese businessmen to import goods from abroad, including the U.S. These developments, plus a favorable market research report on industrial assembly equipment, are encouraging to U.S. exporters. Call Maurice Shea, 202-967-4511. Tokyo Trade Center, Nov. 13-18.

WEST GERMANY. Information and Document Storage and Retrieval Equipment. The market for this equipment in Germany is growing fast. From 24 percent in 1968 the growth rate rose to 42 percent in 1969, 50 percent in 1970, and an estimated 60 percent in 1971. Currently, domestic producers supply only 30 percent of German demand while the U.S. supplies 60 percent. Since 1965 it has been legal in Germany to use microfilm as a replacement for almost all original documents. This exhibition is being held in conjunction with the European Microfilm Congress. Call Lee W. Swift Jr., 202-967-4461. Mainz, Nov. 14-16.

ITALY. Pollution Control Equipment. The Italian Government, in its most recent Five-Year Plan (1971-75), has allocated $3.5 billion for pollution abatement. For 1972 Italy's water and air pollution control equipment market is valued at $300 million. Additionally, strict legal actions during 1971 along with a growing public outcry against mounting pollution has created a strong buying interest among Italian municipal and industrial decision makers. Research indicates that pollution control equipment has not been exhibited sufficiently in the country. Consequently, the U.S. Trade Center, located on the Milan International Fairgrounds, will host 30-35 U.S. firms in conjunction with Italy's largest antipollution exhibition, ANTINQUINIMENTO '72. Contact Don Johnson, 202-967-2795. Milan Trade Center, Nov. 15-19.

WEST GERMANY. Electronica '72. The U.S. Department of Commerce exhibit in the biggest electronics show in the world will feature production equipment for the electronics industry, measurement and test equipment, and electronic components. Indicators point to a 10 percent or better annual rate of increase in the European electronics market through the rest of the seventies. In West Germany, the largest of the European electronics markets, forecasts are upward

Sales opportunities in 9 U.S. commercial exhibitions, trade fairs and solo exhibitions and 18 shows at the nine U.S. Trade Centers are being offered to present and potential U.S. exporters between now and May 1973.

Each Trade Center exhibition is limited to one particular line of products and centers are located in Buenos Aires, London, Milan, Mexico City, Frankfurt, Stockholm, Sydney, Tokyo and Paris. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, write: *Foreign Export Promotion, BIC-936, U.S. Department of Commerce, Washington, D.C. 20230.*

Trade missions are groups of U.S. businessmen organized to travel abroad promoting the export of U.S. goods and services made by their particular industry. **Write:** *Trade Missions Div., BIC-940, U.S. Department of Commerce, Washington, D.C. 20230.*

for 1973. ELECTRONICA '72 gives U.S. electronics manufacturers an opportunity to exhibit for this market as it starts to expand again. Call Don Schmadel, 202-967-4601. Munich, Nov. 23-29.

WEST GERMANY. Pumps, Valves and Compressors. Demand by German end-users of pumps, valves and compressors has been growing more rapidly than the ability of domestic producers to meet it. By 1975, due to an accelerated rate of investment, German buyers are expected to spend more than $1.15 billion annually, almost double the 1967 level, for such equipment. The United States, with a 23 percent market share, is the leading foreign supplier of pumps, valves and compressors to the German market. The growing order backlog, plus the effect of the currency revaluations, should give U.S. suppliers new and greater sales opportunities in this expanding market. Call your local U.S. Department of Commerce Field Office. Frankfurt Trade Center, Dec. 4-7.

SCANDINAVIA. Pollution Control Equipment. Growing environmental concern in the Scandinavian countries has prompted the enactment, or consideration, of comprehensive legislation to combat increasing air, water, and solid waste pollution problems. Sweden alone plans to invest nearly $1.2 billion for plants, systems, and equipment for industrial and municipal pollution control in the 1971-75 period. Although domestic suppliers account for a sizable share of the Nordic market, U.S. equipment and control techniques are highly regarded and price is only secondary when it comes to solving serious pollution problems. Potential customers in the region are most interested in solid waste treatment and recycling equipment, water treatment apparatus, and a wide range of control, test and monitoring instrumentation. Call H. L. Kirchschlager, 202-967-4543. Stockholm Trade Center, Dec. 4-9.

NORTHERN EUROPE. Data Processing Equipment. Three exhibitions will be staged between September 1972 and February 1973 to acquaint Scandinavian, United Kingdom and West German end-users with the latest equipment, accessories and software available in the United States. U.S. exports of EDP equipment to these three areas in 1971 totaled $382 million. Growth rates between 1969 and 1971 are dramatic: To Scandinavia—up 65 percent; to the United Kingdom—up 40 percent; to West Germany—up 66 percent. The first show, EDP-IV, in Stockholm, will involve equipment and software for all applications—business, process control, scientific research. The U.S. exhibition at COMPUTER '72 will emphasize business applications. The specialized Minicomputers show in Frankfurt also will cover the entire spectrum of EDP uses. Call C. Edward Walls, 202-967-4256. Stockholm Trade Center, Sept. 18-23 (closed) and Olympia, London, Dec. 4-8, 1972. Frankfurt Trade Center, Feb. 12-16, 1973.

PARIS. Printing & Bookbinding Equipment. The French printing and publishing industry offers a good opportunity for U.S. manufacturers of printing and binding equipment to expand sales. Rising labor costs in France are leading to new, more efficient methods. Wages in French industry increased nearly 11 percent in 1971. Domestic production of printing equipment is not sufficient to satisfy demand and France relies on imported equipment. In 1971, imports of printing and binding equipment reached $63 million. The United States supplied 10.7 percent of the total. Call Sam Spaulding, 202-967-3968. Paris Trade Center, Jan. 23-27, 1973.

WEST GERMANY. Interpack, 73. This is the largest packaging exhibition in the world. Following Interpack '69, companies exhibiting in the U.S. area reported confirmed sales of nearly $6 million. Overall, that event drew 112,000 visitors to the products and equipment exhibited by 864 companies. This represents an outstanding forum for European presentation and sale by U.S. companies marketing packaging machinery products. Call William S. Gaines, 202-967-4073. Duesseldorf, May 10-16, 1973.

Space Fully Booked

The following exhibitions and trade missions in which all exhibit space has been reserved are still open for visits by interested industry representatives.

Food Processing Machinery and Equipment Exhibition, Mexico City Trade Center, Sept. 4-8; U.S. Packaging Machinery Exhibition, TOKYO PACK '72, Sept. 6-12; Air Conditioning and Refrigeration Equipment, Frankfurt Trade Center, Sept. 11-15; Brno International Fair, Czechoslovakia, Sept. 8-17; Bucharest International Fair, Romania, Oct. 15-24; Industrial, Business and Scientific Equipment Exhibition, Taipei, Oct. 16-21.

Licensing, Investment Abroad

The specific business opportunities on these and following pages have been developed for U.S. traders by international specialists in the Department of Commerce and Foreign Service Officers in U.S. Embassies and Consulates around the world.

Licensing and investment proposals from foreign firms are listed in the columns below. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-976, Washington, D.C. 20230, or from any Commerce Field Office.

MEXICO—3079—License or joint venture to manufacture expanded **polystyrene egg cartons.** Firms prepared to purchase necessary machinery. Presently produces poly bags. Renato G. Garza S., Polietileno Regiomontano, S.A., Km. 4 Carretera a San Miguel de Apodaca, Apartado Postal 2520, Monterrey, Nuevo Leon, Mexico. WTD. P-72346.

PORTUGAL — 3011 — Manufacturing rights for **automobile, truck and tractor tires.** Would include use of patents and trademarks. One of country's largest tire retreading firms; operates well equipped facilities. Employs 120. CIBOREL-Comercio e Industria de Borracha da Boa Esperanca, Lda., Praca Olegario Mariano 3-A, Lisbon. WTD. P-72347.

UNITED KINGDOM—3821—License or joint venture sought by major producer of boiler level control—alarm—automatic shut-down systems to manufacture **sophisticated level indicators for the process industry and solenoid valves of the ASCO type in ¼ inch or ½ inch sizes.** Firm established 1934, reports annual turnover around $12 million and has 722 employees, including 37 salesmen. In addition to main plant, maintains six regional service facilities and has subsidiaries in five European countries. A. A. Passman, Ronald Trist Controls Ltd., 190 Bath Rd., Slough, Buckinghamshire, England. WTD. P-72344.

NETHERLANDS—2840 — Experienced manufacturer of **aerosol products** seeks joint venture or similar arrangement to expand its line. Presently produces aerosols for cosmetic, pharmaceutical and technical application. Operates modern production facilities, has room for expansion. Affiliate of major trading company. H. Poutsma, General Manager, American Chamber of Commerce, 5 Carnegieplein, The Hague. P-72348.

ZAMBIA—3751—An importer of Italian plastic paints and air conditioning equipment seeks a licensing or joint venture arrangement with an experienced manufacturer to produce **bicycles.** Feasibility study made by firm calls for plant with annual production capacity of 50,000 bicycles. Girex Zambia Limited, P.O. Box 3723, Lusaka. Attn: R. Sacchi. P-72345.

SOUTH AFRICA — 3443 — License to manufacture heavy industrial equipment. Product interests include **incinerators, pressure vessels, stills for use in dry cleaning, pollution control, railroad and iron ore handling equipment.** Currently firm is engaged in shipbuilding, steel fabrication and heavy marine repair. Employs 1,000, is member of major company group. Secretary, Globe Engineering Works Ltd., Railway St. or P.O. Box 13, Woodstock, Cape Town, Cape Province. WTD. Background mate-

rial available from Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. P-72353.

ISRAEL—2816—License to manufacture **zinc oxide powder** for use by the paint, rubber and agricultural industry. Firm seeks know-how, advice on necessary plant machinery. Presently produces hot dip galvanizers; imports zinc, chemicals and machinery. Is building a new plant. MIGOS Ltd., P.O. Box 127, Herzliya, Israel. WTD. P-72354.

NIGER—2034—Development Bank seeks quotes on a contract to build and equip **onion dehydration plant**. Production of 40 tons daily into granules, flakes and powder. D. Gonthier, Banque de Developpement de la Republique du Niger, B. P. 277, Niamey. P-72356.

INDIA—3572—License to manufacture **portable typewriters**. Seeks equipment, technical assistance. Plans to establish plant with annual production of 15,000 units. Firm presently distributes standard typewriters, calculators and adding machines. P.R. Ramachandran, Senior Partner, Sarada Agencies, 155 Mount Rd., Madras 2, India. WTD. P-72357.

SWITZERLAND — 3559 — Licenses to manufacture **distillation and pasteurizing equipment, heat exchangers, vacuum systems for the chemical industry.** Firm presently produces equipment for the chemical, food and paper industries. Also makes special parts for nuclear power plants. Has strong capability in stainless steel and precision welding, can fabricate large vessels. Experienced in working with U.S. plans and specifications. Peter Gugger, ALPHAAG, 2560 Nidau, Switzerland. WTD. P-72358.

YUGOSLAVIA—3585—Manufacturer of **consumer, commercial and industrial refrigeration and cooling equipment** seeks license or similar arrangement. Plans to expand production of consumer items, industrial cooling apparatus. Enjoys good domestic reputation, exports about 30% of output. Engineer Bek, Director, Home Appliances Group, Gregory Naumov Electric Machinery, Rade Koncar, Zagreb. P-72359.

TUNISIA—7011—City official and businessman seeking American collaboration for **construction of seaside residential hotel complex** in Tunis suburbs. Plans two and four bedroom units. Design plans available; cost estimated at $960,000. Abdelatif Dahmani, Rue Abdelkacem Chebbi, La Corniche, La Marsa, Tunisia. A copy should be sent to the Commercial Sec., American Embassy, 144 Avenue de la Liberte, Tunis. Upon receipt of copies, the Embassy will provide background information on Tunisia, including the investment code. P-72361.

GERMANY — 3440 — Established producer of stainless steel, tool steel, high-speed steel and acid and heat resistant steel seeks licenses from U.S. firms for any **highly developed fabricated products** made from the various types of steel indicated. Hagener Gusstahlwerke Remy GmbH, 112-116 Eckeseyerstrasse, 58 Hagen, Germany. WTD. P-72362.

NEW ZEALAND—2542—Manufacturer of storage and display shelving seeks licenses from American company to produce **demountable office partitions, steel stud walling and framing systems, storage and display shelving and accessories and mobile storage systems such as shelf units on rails.** Company has labor force of 150 and annual turnover of $3.5 million. I. J. Dudley, Manager, Steelcase Engineering Ltd., P.O. Box 845, Wellington, New Zealand. P-72363.

FRANCE—2819—Manufacturing rights for **oxydizing and activating catalytic components** for the destruction and elimination of toxic effluents from industrial plants. These products will complement present production of industrial boilers for liquid and gas fuel. Firm also makes burners, employs 100. Mr. A. Bianchi, President and General Manager, Foyers Turbine, 4 place de la Liberation, 92-Sevres, France. WTD. P-72364.

BELGIUM — 3444 — Established manufacturing company with equipment for **cutting, bending and soldering of sheet metal** is seeking license or subcontracting agreement with U.S. firms to manufacture products utilizing existing equipment. Would also consider making items containing mechanical parts. Victor Bernard, Deputy Consul General, Consulate General of Belgium, Industrial Sec., 50 Rockefeller Plaza, Suite 1104, New York, N.Y. 10020. P-72365.

Brazilian States Industry Studies Available To U.S. Firms

Under its State development plan, Brazil's Institute of Industrial Development of Minas Gerais (INDI) has prepared pre-feasibility studies on a number of industries, including agribusiness, metallurgical, textile, chemical and the non-metallic sectors. Most of the proposed projects would involve the manufacture of products for the domestic market. Copies of the studies are available to interested and qualified U.S. investors. To obtain further information write: Abilio dos Santos, Director-Superintendent, Instituto de Desenvolvimento, Industrial de Minas Gerais, Rua Sao Paulo, 409, Caixa Postal 992, Belo Horizonte, Minas Gerais, Brazil or Fred Huber, Lynch Wilde & Co., 1346 Connecticut Ave., Washington, D.C. 20036. P-72360.

Licensing In U.S.

For additional information on opportunities to manufacture foreign firms' products in the U.S., write Commerce's Office of International Investment, BIC-874, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248), referring to the appropriate file number assigned each opportunity listed below.

UNITED KINGDOM—A leading supplier of equipment to the **materials handling** industry offers a manufacturing license to an American firm interested in making their system under license. Reported advantages include: an interlocking system of erection allows the pallet system to be assembled before or after loading the pallet, it cannot be assembled incorrectly, nor can it be accidentally dismantled; no loose parts or projections, since all connections are integral in the design of the system; one ton pallet loads can be stacked five high and there is no crushing of the product, since the weight is spread evenly round the edge of the pallet; maintenance costs are minimal because if damage does occur, normally only one of the four sides needs replacing at less than a quarter of the cost of a one piece cage pallet. **File 2220**

GERMANY—An engineer offers a non-patented **system for calculating the torsional-vibration characteristics of diesel-engine-driven units.** The present system requires large computers for measuring the natural frequencies, resonance-critical speeds, dynamical stresses, and other factors. The new system supposedly eliminates the need for computers and provides a number of economical and practical benefits. **File 2221**

NORWAY—A new and novel **mini-loom, suitable for use in schools, therapeutical institutions and homes** has been patented by a Norwegian textile engineer and is offered for manufacture under license in the U.S. Very little space is required for operation and the loom weighs only 27-35 lb. Tapestries, table and floor runners, Smyrna carpets and other products can be loomed. Constructed of colored aluminum, the warp is movable and the frame revolves in a stand. Reportedly, the looming is very simple and is recommended for persons with finger dexterity problems. The invention was awarded a silver medal at the Inventor's Exhibition at Nuremberg and two gold medals at this year's Brussels Show. **File 2222**

NORWAY—A patented method of **stabilizing pneumatic tires** is available to a U.S. licensee. The stabilizer is to facilitate the use of low pressure tires on cars, trucks, buses and airplanes while counteracting swaying in sharp turns, and the effect of heavy side winds on aircraft when landing or taking off. Basically, a rigid connection between the tire and the hub is effectuated in the axial direction. Several elements are employed in establishing the connection and are distributed along the circumference of the wheel like spokes. **File 2223**

SWITZERLAND—A well known Swiss firm, highly specialized in the field of novel filters and filtering systems for industrial application offers U.S. licensing arrangements for their new type of **plastic lamellas filter for the filtering of used solvent solutions in dry cleaning plants.** Conventional systems use a wire filter which is subject to clogging and damage due to pressure buildup. The self-cleaning plastic lamellas filter is reportedly the first of its kind to overcome these difficulties. The operation combines a so-called auxiliary powder filtering material which is added to the cleaning solution during the cleaning process. The filtering material forms a cake on top of the plastic lamellas filter, which retains all impurities resulting from the cleaning process. The soiled cake drops off the filter automatically at the end of the cleaning process. **File 2224**

SWITZERLAND—A successful planner and builder of commercial and industrial warehouses throughout Europe is seeking a U.S. firm to produce its **conveying and stocking systems as well as the related electric programming and control devices** under licenses. Under their system all operations such as conveying, lifting, and stacking are programmable and directed by an electronic control unit. Their system reportedly can be built into already existing premises or as a completely self-supporting warehouse. The firm specializes in R & D and in planning new warehousing systems. A new, well-equipped division for the production of electronic controls was recently opened. **File 2225**

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Business Opportunities Staff and other units of the Bureau of Domestic Commerce (BDC), U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency. A (★) at the end means that additional information may be borrowed by U.S. firms from the individual division of BDC. To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTD indicates that a World Trade Directory Report containing financial and business background information on the foreign firm is available for $2 from the U.S. Department of Commerce, BIC-976, Washington, D.C. 20230.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Field crop farms

01120 — SOUTH AFRICA — American long grained rice A-1 quality, clean, free of impurities, in 50-kilo bags. Requests c. & f. prices, including 5% commission. Direct purchase & agency. Mill Agents South Africa (Pty.) Ltd. (importer, agent), 122/130 Boston House, Strand St., P.O. Box 3161, Cape Town, Cape Province. WTD 10/71.

01136—FRENCH WEST INDIES—Dry beans, especially red beans. Must be of high quality. Exclusive representation for Guadeloupe. Compagnie Caraibe, (importer, dist.), 9 Quai Lardemoy, P.O. Box 57, Pointe-A-Pitre, Guadeloupe. WTD 5/72.

Dairy products

20231—VIET NAM—Powdered milk for infants' use. Packing in can of 1-Lb net ea., 24 cans per cart. Quotations f.o.b., ocean freight Saigon indicated separately. Samples and descriptive literature requested. Copy of the milk formula is available from the U.S. Department of Commerce, Trade Opportunities Staff, BDC-584, Washington, D.C. 20230, (202-967-4675). Establissements SAI-AN, SAIMCYCA, (importer, dist., retailer), 87A-87B Ham Nghi, Saigon. WTD in prep.

Food preparations

20961—FRENCH WEST INDIES—Vegetable oils, shortening; desired in containers of approx. 36 oz. Correspondence requested in French. Albert Boulogne, (importer, dist., retailer), 10, Rue Sadi Carnot, P.O. Box 282, Pointe-A-Pitre, Guadeloupe. WTD 5/72.

Miscellaneous apparel, accessories

23812 — FRENCH WEST INDIES — Heavy-duty woven fabric work gloves used in construction work. SOGECO, Société Générale d'Exploitation Commerciale, (importer, dist., retailer), Angle Quais Lardenoy et F. de Lesseps, P.O. Box 82, Pointe-A-Pitre, Guadeloupe. WTD 5/72.

Sawmills, planing mills

24211—JAPAN—Incense cedar, air dried planks, dried over six mo. under sun, squares as cut to nominal 3" x 3" cross sections, random length 4' to 16' long. Purchase: 200,000 FBM per year. Sansei Trading Co., Ltd., Attn: Mr. Takeya Takahashi, Mng. Dir. (importer, mfr.), 20-5 Shinkawa 1-chome, Chuo-ku, Tokyo. WTD 5/72.

24212—GERMANY — Lumber, sawed—hemlock, Oregon redwood, red-cedar, redpine. Correspondence requested in German. Friedrich Haeussermann Saege- & Hobelwerk (saw and planing mill), Holzimport (dist., mfr., retailer), 26 Eugenstrasse, P.O. Box 30, D-7157 Sulzbach/Murr, Baden-Wuerttemberg. WTD 6/72.

Millwork, veneer, plywood, prefabricated structural wood items

24310—FRENCH WEST INDIES—Window sash and frames made of redwood. Correspondence requested in French. SOPICO, (importer, dist., mfr.), Place Camille Desmoulins, P.O. Box 40, Pointe-A-Pitre, Guadeloupe. WTD 5/72.

24332—FIJI — Low-cost prefabricated housing, single unit and/or multi unit aluminum or synthetic materials suitable for tropical conditions. C.i.f. Suva. Ministry of Urban Development, Housing & Social Welfare c/o Government Buildings, Suva.

Industrial chemicals

● **28100—IRAN**—Supply of 16,200 liters of brake fluid in 4-liter and 20-liter packages. Conforming to specification SAE 7OR3. Tender No. 2, bid deadline 3 p.m., August 6. Ordnance Command, IIGF, Abass Abad, Tehran. Tender with terms and conditions available from the Chemicals and Rubber Division, BDC-710, U.S. Department of Commerce, Washington, D.C. 20230. ★(202-967-3420). A review copy will also be available at the Department of Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, 94102. ★(415-556-5868).

● **28100 — IRAN** — Supply of 222,000 liters of antifreeze in 4-liter, 20-liter, and 200-liter packages. Tender No. 1, bid deadline 3 p.m., August 1. Ordnance Command, IIGF, Abass Abad, Tehran. Tender with terms and conditions available from the Chemicals and Rubber Division, BDC-710, U.S. Department of Commerce, Washington, D.C. 20230. ★(202-967-3420). A review copy will also be available at the Department of Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco 94102, ★(415-556-5868).

Synthetic materials

28210 — GERMANY — Semi-finished plastics materials (chemical and high-temperature resistant) to be used for sealing purposes, etc. C.i.f. Hamburg; terms of payment and delivery to be negotiated. Direct purchase and/or agency. M. M. Wieland (importer, dist., agent), Maschinen- und Praezisionstechnik, Max-Reger-Strasse 170, D-8501 Schwaig b. Nuernberg. WTD 5/72.

28212—THAILAND — Cellophane, various types. Requests c.i.f. Bangkok prices, catalogs, literature. Kim Pai Ltd., Part., (importer, printing house), 1741 Chan Rd., Bangkok. WTD 10/71.

28213—NEW ZEALAND—Linear polyethylene sheet, deep drawing vacuum forming quality, ultra-violet stabilized for exterior application in production of boats, orange or similar color, in sheets 108 in. by 52 in., +⅛" −0"; caliper .187" to .200" plus or minus 5% max. Annual usage of 1,500 short tons in shipments of 40 to 100 short tons. Eglinton Plastics Ltd., Attn: C. P. Duffy, (mfr.), P.O. Box 3626, Wellington. WTD in prep.

Chemical products

28911—FRANCE — Protein adhesives, casein adhesives, vegetable proteins for paper industries, coating paper. Descriptive literature, prices requested. Prolait S.A. (importer, dist., mfr.), 14 rue d'Inkermann, 79, Niort. WTD 6/72.

28930—THAILAND — Gravure ink for printing. Requests c.i.f. Bangkok, prices,

samples, literature. Kim Pai Ltd., Part., (importer, printing house), 1741 Chan Rd., Bangkok. WTD 10/71.

28993 — KOREA — Industrial chemical specialties; rust resisting, removing compounds, 300 drums (55/gal. drum) initial purchase. Literature, c.i.f. quotations requested. National Communications Corp. (dist., agent), 45–1 Kwanchul-dong, Chung-ku, Seoul. WTD in prep.

Fabricated rubber products

30695 — PHILIPPINES — Packings, rubber. Igri Industrial Sales Corp., Attn: Eli R. Bicaldo (importer, dist., retailer), 484 Gregorio Araneta Boulevard, Quezon City. WTD 4/72.

Plastic products

30798—SPAIN—Inflatable plastic picnic supplies, plastic balls, plastic swimming pools, plastic games, etc. for outdoor use. Correspondence requested in Spanish/French/Italian. CRISPA (dist., mfr.), Avda. de Madrid, 39, Cuart de Poblet, Valencia. WTD 6/72.

Industrial leather belting, packing

31210 — PHILIPPINES — Packing, leather. Igri Industrial Sales Corp., Attn: Eli R. Bicaldo (importer, dist., retailer), 484 Gregorio Araneta Blvd., Quezon City. WTD 4/72.

Structural clay products

32512—SURINAM — Glazed, unglazed facing tiles. Samples and/or clear illustrations, specs. requested. Fernandes Verenigde Bedrijven N.V., (importer, dist., retailer), P.O.B. 1834, Paramaribo. WTD in prep.

32530—AUSTRALIA—Four or five ton shipment of ceramic tiles, 6″ by 6″; floor tiles glazed, unglazed, or semi-glazed, 12″ by 12″. Direct purchase & agency. Whimpex Australia Ltd., (importer, agent), P.O. Box 152, Hamilton, Queensland 4006. WTD in prep.

32530—SURINAM—Glazed ceramic wall, floor tiles. Samples and/or clear illustrations, specs. requested. Fernandes Verenigde Bedrijven N.V., (importer, dist., retailer), P.O.B. 1834, Paramaribo. WTD in prep.

Abrasive, asbestos, nonmetallic mineral products

32926—SURINAM—Vinyl asbestos floor tiles. Samples and/or clear illustrations, specs. requested. Fernandes Verenigde Bedrijven N.V., (importer, dist., retailer), P.O.B. 1834, Paramaribo. WTD in prep.

32932 — PHILIPPINES — Gaskets, regardless of material. Igri Industrial Sales Corp., Attn: Eli R. Bicaldo (importer, dist., retailer), 484 Gregorio Araneta Blvd., Quezon City. WTD 4/72.

32933 — PHILIPPINES — Packings, asbestos, asbestos-metallic, asbestos-rubber. Igri Industrial Sales Corp., Attn: Eli R. Bicaldo (importer, dist., retailer), 484 Gregorio Araneta Blvd., Quezon City. WTD 4/72.

Steel mill products

● 33100—INDIA—796 m. tons of M.S. plates and 100 m. tons of hot rolled sheets. Tender No. 1287-A/26W/BSL/ER/Plates. Sealed bids accepted from manufacturers/suppliers located in member countries of the World Bank and Switzerland. Copies of tender documents available upon request from the Iron and Steel Program, U.S. Department of Commerce, Washington, D.C. 20230 ★(202-967-2613). Bid deadline July 26.

● 33100—IRAN—14,000 pieces of 4 and 6 holed fishplate Type II A and 4,000 pieces of fishplate Type III A. Tender No. 259,409-51 Iranian State Railways. Copies of tender documents are available from the Iranian Economic Mission, 2233 Wisconsin Ave., NW., Washington, D.C. 20007 ★(202-338-5393). Bid deadline August 13.

● 33100—IRAN—4,000 pieces of 4 hole steel fishplate for rail and 4,000 pieces of square head bolts and hexagonal nuts. Tender No. 99 105/51 Iranian State Railways. Copies of tender documents available from the Iranian Economic Mission, 2233 Wisconsin Ave., NW., Washington, D.C. 20007 ★(202-338-5393). Bid deadline August 16.

● 33100 — KOREA — Various quantities of steel plate, rerolling coil, pig iron, coating materials and welding materials. Tender No. ADB/L-72072/PII, Office of Supply, Government of the Republic of Korea, Seoul. Copies of tender documents available from the Iron and Steel Program 786, U.S. Department of Commerce, Washington, D.C. 20230 ★(202-967-2613). Bid deadline August 11.

33127—THAILAND — Steel sheet, U.S. Grade 25-32. Require 200-ton shipment, approx. ten shipments a year. Requests c.i.f. Bangkok prices, delivery term. Siam Enamel Factory Ltd. (importer, dist., mfr.), 990/1 Songwad Rd., Bangkok. WTD 6/72.

Nonferrous foundries

33620—GERMANY — Semi-finished alloyed metal products; i.e. chromium-nickel alloyed semi-finished products for electrical industry: resistance straps; thermo-bimetal; silver and gold plated bands (basic materials: brass, copper, bronze, and copper-beryllium). C.i.f. Hamburg; terms of delivery and payment to be negotiated. Direct purchase and/or agency. M. M. Wieland (importer, dist., agent), Maschinen- und Praezisionstechnik, 8501 Schwaig b. Nuernberg, Max-Reger-Strasse 170. WTD 5/72.

Cutlery, hand tools, general hardware

34231 — SURINAM — Mechanics hand tools: pliers, wrenches, socket wrenches, screw drivers, ballpeen hammers. Samples and/or clear illustrations, specs. requested. Fernandes Verenigde Bedrijven N.V., (importer, dist., retailer), P.O.B. 1834, Paramaribo. WTD in prep.

34232—SURINAM—Complete line, hand operated edge tools. Samples and/or clear illustrations, specs. requested. Fernandes Verenigde Bedrijven N.V., (importer, dist., retailer), P.O.B. 1834, Paramaribo. WTD in prep.

34233—SURINAM—Complete line, files, rasps, shovels, spades, hammers, forks, hoes, rakes, etc. Samples and/or clear illustrations, specs. requested. Fernandes Verenigde Bedrijven N.V., (importer, dist., retailer), P.O.B. 1834, Paramaribo. WTD in prep.

34250—SURINAM—Complete line, hand saws; hand, power saw blades. Samples and/or clear illustrations, specs. requested. Fernandes Verenigde Bedrijven N.V., (importer, dist., retailer), P.O.B. 1834, Paramaribo. WTD in prep.

34292 — JAMAICA — Furniture hardware; drawer pulls, handles, slides, casters, hinges. Brochures, price list requested. Direct purchase & agency. Creative Interiors, Attn: Sharon Shaw, (importer, dist., decorating consultant), 4 Mallett Ave., Kingston 10. WTD in prep.

34292—SURINAM—General line, household, office furniture hardware. Samples and/or clear illustrations, specs. requested. Fernandes Verenigde Bedrijven N.V., (importer, dist., retailer), P.O.B. 1834, Paramaribo. WTD in prep.

34294 — SURINAM — General line, builders hardware. Samples and/or clear illustrations, specs. requested. Fernandes Verenigde Bedrijven N.V., (importer, dist., retailer), P.O.B. 1834, Paramaribo. WTD in prep.

Fabricated structural metal products

34434—INDIA—5,000 empty oxygen gas cylinders. Premier Vegetable Products Ltd., Attn: S.M. Lodha, (mfr.), 95 Industrial Area, P. B. 97, Jhotwara, Jaipur, Rajasthan. WTD in prep.

Fabricated metal products

34943—JAPAN—Special purpose valve which shuts off oil blowing in pipe lines when valve senses earthquakes. Shinwa Trading & Engineering Co., Ltd. (importer, agent), 5-13 Iwamoto-cho 1-chome, Chiyoda-ku, Tokyo. WTD 3/71.

Construction, mining, materials handling machinery, equipment

● 35300—ALGERIA—(1) Belting, (2) wheeled and crawler loaders, (3) mineral loading installations, and (4) "juabos" with multiple drilling arms. Tender No. not specified; bid deadline August 15. Monsieur le Directeur General de le Sonarem, 127, Blvd. Salah Bouakouir, Algiers. Bid dossiers may be obtained by sending $2 for each part desired to: Direction Generale, SONAREM, 127, Blvd. Salah Bouakouir, Algiers.

●35300—MOZAMBIQUE — Two excavators each equipped with a four-cubic-yard scraper bowl, and two 70-foot shafts with clamshell buckets of 2½ cu. yd. capacity for mounting on MARION 93-M (shovel) excavations, series 9902 and 9920. Contact: Direccao de Exploracao do Porto e C. de Ferro da Beira; Caixa Postal No. 472 Beira, Mozambique. Tender No. 89/AB/CFM/72. Bid deadline Sept. 29.

● 35300 — SOUTH AFRICA — Design, manufacture, and supply of tailings thickeners, slimes disposal and water pumping plant. Tender No. SA 11; bid deadline August 30. The Head, Capital Buying, South African Iron and Steel Industrial Corp. Ltd., P.O. Box 450, Pretoria, Transvaal. Enquiry documents are obtainable from ISCOR headquarters at above address, against a deposit of R250 ($330) which will only be refunded on receipt of a bona fide tender for the complete plant.

● 35300—SOUTH AFRICA — One complete ore handling plant consisting of (a) 5000 t/h railway truck tipping installation, (b) 5000 t/h stacking and bedding plants, and (c) 8000 t/h reclaiming and shiploading installations. Tender No. SA-1; bid deadline August 31. The Head, Capital Buying, South African Iron and Steel Industrial Corp. Ltd., P.O. Box 450, Pretoria, Trans-

vaal. The enquiry documents are obtainable from ISCOR headquarters, address given above, against a deposit of R250 ($330) which will only be refunded on receipt of a bona fide tender for the complete plant.

● **35300—SOUTH AFRICA**—Quaternary crushing and screening plants with an average feed capacity of 2600 t/h of 90mm haematite ore. Tender No. SA-8; bid deadline August 31. The Head, Capital Buying, South African Iron and Steel Industrial Corp., Ltd., P.O. Box 450, Pretoria, Transvaal. The enquiry documents are obtainable from ISCOR headquarters, address given above, against a deposit of R250 ($330) which will only be refunded on receipt of a bona fide tender for the complete plant.

● **35300—SOUTH AFRICA** — One complete 4500 t/h average capacity crushing installation consisting of primary, secondary and tertiary crushing plants. Tender No. SA 10; bid deadline Sept. 5. The Head, Capital Buying, South African Iron and Steel Industrial Corp. Ltd., P.O. Box 450, Pretoria, Transvaal. The enquiry documents are obtainable from ISCOR headquarters, address given above, against a deposit of R250 ($330) which will only be refunded on receipt of a bona fide tender for the complete plant.

● **35300 — SOUTH AFRICA** — Fine crushing plant with an average feed capacity of 660 t/h −10/8 mm +6/5 mm haematite ore. Tender No. SA-9; bid deadline August 31. The Head, Capital Buying, South African Iron and Steel Industrial Corp. Ltd., P.O. Box 450, Pretoria, Transvaal. The enquiry documents are obtainable from ISCOR headquarters, address given above, against a deposit of R250 ($330) which will only be refunded on receipt of a bona fide tender for the complete plant.

● **35300—SOUTH AFRICA** — Automatic sampling plants for control of beneficiation and blending plants. Tender No. SA 12; bid deadline August 30. The Head, Capital Buying, South African Iron and Steel Industrial Corp., Limited, P.O. Box 450, Pretoria. The enquiry documents are obtainable from ISCOR headquarters, address given above, against a deposit of R250 ($330) which will only be refunded on receipt of a bona fide tender for the complete plant.

Metalworking machinery

35419—JAPAN—Bit to be used in edge planers to plane welded edges of steel pipes at very high speeds, about 10 feet per minute. Fukuoka Branch Office, Pacific Projects Trading Co., Ltd., (importer, dist., agent), c/o Ohnishi Bldg., 7-11 Tenjin 4-chome, Fukuoka City. WTD 1/71.

35421—ZAMBIA—Machinery to manufacture nails for sizes 1.5 mm to 5.5 mm in diameter and 25 mm to 155 mm in length. Requests prices, landed costs either to Lusaka or Dar-es-Salaam asap, with recommended spares for one yr. Quotes should include price of cutter, die and grinder for cutter. Lusaka Engineering Co. (LENCO), Attn: Mr. D. Pitman (mfr.), P.O. Box 3455, Lusaka. WTD in prep.

35481—ZAMBIA — Tube manufacturing machinery having additional rollers or interchangeable rollers to produce not only round conduit tubes but also triangular and square tubes from sizes of ¾" to 2" diameter. Must be capable of welding seam but not by induction welding. Flying cutter should be from 10 ft. to 15 ft. Requests prices, landed costs either to Lusaka or Dar-es-Salaam asap, with recommended spares for one year. Lusaka Engineering Co. (LENCO), Attn: Mr. D. Pitman (mfr.), P.O. Box 3455, Lusaka. WTD in prep.

Special Action

Each of the following trade notices is deemed to rate the special attention of American manufacturers and suppliers by U.S. Commercial Officers overseas.

20361 — SPAIN—Frozen seafoods, including soups, stews, chowders, dinners, pies, etc. Frozen hake, angler, sole, tuna, anchovy, codfish, squid, cuttlefish, lobster, crayfish, shrimp. Specifications for first qualities in grams. Quote c.i.f. Spanish northern and Mediterranean ports. Requests information about packing, samples. Compania General de Tabacos de Filipinas, S.A. (importer, dist., agent), Ramblas, 109, P.O. Box 18, Barcelona 2. Cable Address: TABACALERA. WTD 6/72.

33134 — GERMANY — Calcium coated thin sheet iron, thickness of iron foil 0.006 in., thickness of calcium layer 0.004-0.008 in., minimum width of sheet 2.6 in., for use in special batteries. Estimated annual requirements about 11,000 sq. ft. VARTA AG, Forschungs- und Entwicklungszentrum, (mfr.), 72 Gundelhardtstr., 6233 Kelkheim/Ts. WTD 12/71.

35593—MEXICO — Medium sized manufacturer of poly rolls and bags desires to expand production by entering into manufacture of expanded polystyrene egg cartons. To spend between $100,000-200,000 for machinery to manufacture egg cartons. Polietileno Regiomontano. S.A., Sr. Renato G. Garza S., (mfr.), Km. 5 Carretera a San Miguel de Apodaca, Apartado Postal 2520, Monterrey, Nuevo León. WTD 5/72.

36360—ARGENTINA — Industrial sewing machines, attachments. Quotations, descriptive catalogs requested. Thompson & Williams Argentina S.A.C.I. y F., (mfr., retailer), Alsina 951, Buenos Aires. WTD in prep.

38410—AUSTRIA — Instruments for cardiac and vascular surgery, cardiocatheters, lymphographic and arteriographic equipment, vascular and other implants. J. Odelga, Aerztlich-Technische Industrie Ges.-m.b.H., (importer, mfr.), Ganglbauergasse 11, P.O. Box 105, A-1171 Vienna. WTD 5/71.

Special industry machinery

35511—BOLIVIA—Complete plant for manufacturing ice cream, like Eskimo pies. Correspondence requested in Spanish. Ines de Exeni, (importer, mfr.), P.O. Box 612, Santa Cruz. WTD in prep.

35513—THAILAND — Winemaking machinery, complete process. Catalogs, full technical information requested. Eastern Chemical Co., Ltd., Attn: Krich Ruangsook, Project Supervisor (importer, mfr.), 421 Mahaprutaram Rd., Bangkok. WTD in prep.

35521 — MEXICO — Furniture retailer, curtain manufacture plans open new factory to laminate plastic coating onto curtain, other type fabrics. All machinery, technical assistance, plus some plastic resins etc. Estimate beginning annual demand for 300,000 meters of such fabric. Correspondence requested in Spanish. Marchand, S.A., Sr. Horacio Marchand D., (mfr., retailer), Hidalgo Pte. 825, Apartado Postal 2703, Monterrey, Nuevo León. WTD in prep.

35521—TAIWAN—Complete set, 10,000-spindle spinning mill equipment. K. H. Trade Intl. Ltd., (importer, agent, exporter), 33, Lane 106, Pateh Rd., Sec. 3, Taipei. WTD 4/72.

35540—ISRAEL—Wood/pulp machinery, related equipment for the manufacture of trays for eggs, fruit, etc. M.A.I., Israel Packing Works Ltd., Attn: Ithak Aelion, Plant Mgr. (importer, dist., mfr.), Industrial Zone, P.O. Box 162, Nathanya. WTD in prep.

35595—TAIWAN—Standard front delivery gauze sponge machines; slitters, cotton ball machines; cotton tip applicator machines. K. H. Trade Intl. Ltd., (importer, agent, exporter), 33, Lane 106, Pateh Rd., Sec. 3, Taipei. WTD 4/72.

35595—TAIWAN—Complete set, glass fiber manufacturing machinery. Gold Flag Trading Co., Ltd., (importer, agent), 2nd Flr., 29 Heng Yang Rd., Taipei 100. WTD in prep.

General industrial machinery

● **35600—MEXICO**—Supply and installation of ten pumps including accessories for deep wells. The equipment will be operated by electric motors and capable of pumping between 40 and 100 liters per second and maintaining a dynamic level between 25 and 70 meters. Convocatoria No. P.I. 72-21; bid deadline not specified. Contractors interested in participating can obtain specifications from Direccion General de Obras de Riego para el Desarrollo Rural, Direccion de Construccion, Departamento de Contratos y Adquisiciones, Paseo de la Reforma #67-7° piso, Mexico, D.F. There is a fee of $50 pesos ($4) for the specifications.

35614—INDIA—One multistage vertical high pressure oxygen gas compressor water lubricated with capacity to compress about 62 cubic meters of oxygen gas per hour. Premier Vegetable Products Ltd., Attn: S.M. Lodha, (mfr.), 95 Industrial Area, P. B. 97, Jhotwara, Jaipur, Rajasthan. WTD in prep.

35690—FRANCE—Filter cartridges, all types, small sizes; diameter between 3 & 4", for gas, liquids, compressed air; filters for compressed air. AMFG Appareils Modernes de Filtration et Graissage (mfr., retailer), 39 rue du Moulin des Bruyères, 92-Courbevoie. WTD in prep.

35690 — FRANCE — Casein factory machinery and equipment. Descriptive literature requested. Prolait S.A. (dist., mfr.), 14 rue d'Inkermann, 79 Niort. WTD 6/72.

35690—INDIA—One oxygen gas charging manifold for 12 cylinders, 6 on each

side, complete with master valve, master gauges, pigtail connections. Premier Vegetable Products Ltd., Attn: S.M. Lodha, (mfr.), 95 Industrial Area, P. B. 97, Jhotwara, Jaipur, Rajasthan. WTD in prep.

35690—TAIWAN—Gauze sponge packaging machines. K. H. Trade Intl. Ltd., (importer, agent, exporter), 33, Lane 106, Pateh Rd., Sec. 3, Taipei. WTD 4/72.

Machinery

35992 — PHILIPPINES — Packings, metallic, semi-metallic. Igri Industrial Sales Corp., Attn: Eli R. Bicaldo (importer, dist., retailer), 484 Gregorio Araneta Blvd., Quezon City. WTD 4/72.

Electric transmission, distribution

36110—PHILIPPINES—Spark tester or pinhole tester (electrical) used in testing solidity of rubber in tank lining jobs. Gulf Rubber Products, Attn: Lorenzo A. Salvador, Gen. Mgr. (importer, dist.), 131 Mexico Ave., Las Piñas, Rizal. WTD in prep.

Electrical industrial apparatus

36210—ISRAEL — Portable generators, gas-driven, 350 watts/220 volt AC or 12 volt DC for operation of electrical tools (drills, etc.), television sets. Regular requirement 100 units per mo. Direct purchase; later exclusive agency. Asia Development & Management Ltd. (dist., agent, retailer), 96 Rothschild Blvd., Tel Aviv. Att: J. Rosenbuch, Sales Engineer, Cable: ASIATRADE TELAVIV. WTD 3/72.

Electric lighting, wiring equipment

36425 — SPAIN — Tubular steel electric utility poles. Ornitze (dist., agent), San Prudencio No. 27, Deptos. 7 y 8, Vitoria, Alava. WTD 4/72.

Communication equipment

● 36600—ALGERIA—The Ministry of Information requires microwave, television transmitting and remote control equipment. Tender No. 245-E-1, Lot No. 1, Bid deadline Sept. 30. Bid document may be obtained for $20 from Direction des Services Techniques et de 1 Equipment, 21 Bd. des Martyrs Algiers, Algeria (Telex No. 91.014 Alger).

● 36620—ALGERIA—The Algerian National Railroad requires ten simultaneous telegraphic and telephonic bivocal units for use over two-line circuit. Tender No. 50-10/CHM, bid deadline August 25. Bid documents in French are available on a loan basis to firms located in the U.S. from the C&E Division, BDC-720, U.S. Department of Commerce, Washington, D.C. 20230. ★(202-967-4822).

Electronic components, accessories

36740 — GERMANY — Semiconductors. C.i.f. Hamburg. Direct purchase & agency. M. M. Wieland (importer, dist., agent), Maschinen- und Praezisionstechnik, Max-Reger-Strasse 170, D-8501 Schwaig b. Nuernberg. WTD 5/72.

36790 — GERMANY — HF-condensers; HF-inductors. Direct purchase and/or agency. M. M. Wieland (importer, dist., agent), Maschinen- und Praezisionstechnik, Max-Reger-Strasse 170, D-8501 Schwaig b. Nuernberg. WTD 5/72.

36795 — FRANCE — Electronic components; passive components, microelectronic components. Jouan Quetin S.A., Div. Elenic, (importer, dist.), 163, Ave. Gambetta, Paris 20e. WTD in prep.

36795—ITALY—Electronic hearing aid components, parts, accessories. Microelectronics, (importer, dist., agent), Via Ariodante Fabretti 5, 00161 Rome. WTD 5/72.

Motor vehicles, equipment

37141—FRANCE—Mufflers for industry. A.M.F.G. Appareils Modernes de Filtration et Graissage (mfr., retailer), 39 rue du Moulin des Bruyères, 92-Courbevoie. WTD in prep.

Laboratory, research instruments

38112—GERMANY—Analyzer for laboratories. G. Tiedemann & Co. (importer, dist.), 2 Hamburg 1, Nordkanalstr. 49. WTD in prep.

Instruments for measuring, indicating, controlling, physical characteristics

38213 — GERMANY — On-stream analyzer for food, water, chemical, petrochemical industry. G. Tiedemann & Co. (importer, dist.), 2 Hamburg 1, Nordkanalstr. 49. WTD in prep.

38213—JAPAN — Moisture measuring equipment for sawn lumber, flat board with thickness ranging from ⅝"-1⅝"; width 8"-19"; length approximately 7 yds. Measuring scope must fall in range of moisture content 80-90% in undried lumber or 8-20% in dried lumber under normal atmospheric conditions. Should be equipped with marking mechanism with color inks or paints, i.g., red 80-85% moisture content; green, 85-90% in undried lumber; yellow, 8-12%; brown, 12-16%; black, 16-20% in dried lumber. Direct purchase & agency. Shinwa Trading & Engineering Co., Ltd., Attn: Mr. Tatsumi Oneyama, Mgr., Sales Promotion & Development Dept. (importer, dist., agent), 5-13 Iwamoto-cho 1-chome, Chiyoda-ku, Tokyo 101. WTD 3/71.

Surgical, medical, dental instruments

38423—FRENCH WEST INDIES—Personal industrial safety devices, eye, face, head protectors. SOGECO, Société Générale d'Exploitation Commerciale, (importer, dist., retailer), Angle Quais Lardenoy et F. de Lesseps, P.O. Box 82, Pointe-A-Pitre, Guadeloupe. WTD 5/72.

Ophthalmic goods

38513—FRENCH WEST INDIES—Protective goggles for industrial workers. SOGECO, Société Générale d'Exploitation Commerciale, (importer, dist., retailer), Angle Quais Lardenoy et F. de Lesseps, P.O. Box 82, Pointe-A-Pitre, Guadeloupe. WTD 5/72.

Watches, clocks, clockwork operated devices, and parts

● 38700—ALGERIA—Supply of chronometers (master clocks, secondary clocks and station clocks) for the Oran and Annaba train stations of the Algerian National Railroads (SNCFA). Tender No. 50-9, bid deadline August 25. Invited by the Monsieur l'Ingenieur Chef de Service de la Voi et des Batiments, SNCFA, 21/23 Blvd. Mahamed V, Alger, Algerie. Terms and specifications are in French and available on loan basis from the Business, Photographic and Scientific Equipment Division, BDC-708, U.S. Department of Commerce, Washington, D.C. 20230 ★(202-967-2939).

Toys, amusement, sporting goods

39410 — FRENCH WEST INDIES — Vehicular racing sets for children. Maharaj Frères et Cie., Delhi Bazar, (importer, agent, retailer), 41 Rue Blénac, P.O. Box 528, Martinique. WTD 5/72.

39410—GERMANY — Model kits, hobby and toy, from plastic material. Intermodel, Bernhard Engler (importer, retailer, mail order), 6551 Hargesheim, Ringstr. 24. WTD 6/72.

Manufacturing industries

39960—JAMAICA — Hard surface floor coverings, vinyl, linoleum, medium price range, especially mosaics, imitation inlays, imitation slate. Direct purchase & agency. Creative Interiors, Attn: Sharon Shaw, (importer, dist., decorating consultant), 4 Mallett Ave., Kingston 10. WTD in prep.

Services

● 89900—LIBYA — The Government is requesting bids for a complete geological and geophysical map of the Zuara and Homs-Misurata areas. Specifications and tender documents are obtainable from Secretary, Tender Committee, Industrial Research Center, Alfath Rd., P.O. Box 3633, Tripoli, Libyan Arab Republic, upon payment of 20 Libyan Dinars ($61.40). Tender committee is not obligated to accept the lowest bid. Bid deadline is August 5.

SHAPE Announces Tenders On VHF/FM Mobile Equipment

The Purchasing and Contracting Office, SHAPE, has issued tender No. IFB-72-27 PS/MEB for the **supply and installation of VHF/FM mobile communications equipment.** Bid deadline is August 30. Only U.S. firms certified by the U.S. Department of Commerce are eligible to bid on NATO projects. U.S. firms interested in certification should contact the Communications-Electronics Division, BDC-720, U.S. Department of Commerce, Washington, D.C. 20230.

Copies of tender announcement and specifications are available from the Purchasing and Contracting Office, Materiel Engineering Branch, C&E Division, SHAPE, Belgium B 7010 or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, Room 1112, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-4822)

Greece Issues Tender For Radio Transceivers

The Ministry of National Economy has issued Tender No. 452/72 for 10 radio transceivers for installation on ships. Bid deadline July 6. Copies of tender announcement and specifications are available from the Ministry of National Economy (Commerce), Directorate General of Procurement, 4th Directorate of State Purchases, Canningos Sq., Athens or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, Room 1112, U.S. Dept. of Commerce, Washington, D.C., 20230, ★(202-967-4822).

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.

Meat products

20118—SURINAM—Canned meats. Fung Fen Chung Trading Co. (importer, dist., retailer), Gouverneurstraat 84–86, P.O. Box 24, Nieuw Nickerie. WTD in prep.

Canning, preserving foods

20332—SURINAM — Canned vegetables. Fung Fen Chung Trading Co. (importer, dist., retailer), Gouverneurstraat 84–86, P.O. Box 24, Nieuw Nickerie. WTD in prep.

20334—FRANCE—Canned fruit juices (all kinds). Ste Giraud (dist.), 32, blvd. Ernest Gesquy, 13–Marseille. WTD in prep.

20338—SURINAM — Fruit preserves. Chatterpall Bharratsingh (importer, dist., retailer), Balastraat 65, P.O. Box 37, Nieuw Nickerie. WTD in prep.

20341—FRANCE — Dried and dehydrated vegetables (all kinds). Ste Giraud (dist.), 32, blvd. Ernest Gesquy, 13–Marseille. WTD in prep.

Food preparations

20921—INDIA — Soyabean oil. Indian Metropolitan Trading Co. (indent agent), Commercial House, 4A, 9th flr., 2 Ganesh Chandra Ave., Calcutta-13. WTD in prep.

Broad woven fabric mills, cotton

22117 — EL SALVADOR — Finished, bleached, white finished, plain dyed, printed broad-woven fabrics. Correspondence requested in Spanish, Salvador Angel Flamenco, "Flamingo Representaciones", (agent), Apartado Postal 1091, (Calle San Antonio Abad No. 1965), San Salvador. WTD in prep.

Men's, youths', boys' furnishings

23215—SURINAM — Men's, boys' light nightwear. Pan American General Store (importer, agent, retailer), Gouverneurstraat 68, P.O. Box 41, Nieuw Nickerie. WTD in prep.

Paper mills

26219 — ISRAEL — Heat-sealing paper for tea bags: 16 mm. thickness in rolls; 100 mm. width, 120 mm. in drums. The Middle East Trade Agency, METRACO (importer, dist., agent), P.O. Box 379, Tel Aviv. WTD 9/71.

Industrial chemicals

28151—NETHERLANDS — Cyclic intermediates for cosmetics, toilet preparations, for pharmaceutical, veterinary, chemical industries. (Exclusive agency.) K.V.K. Industrie- en Handelsonderneming N.V., Attn: D. E. de Jong. (importer, dist., agent), 156 Soerenseweg, Apeldoorn. WTD 3/72.

28160 — GERMANY — Inorganic pigments. Indroma Chemikalien GmbH. (importer, agent), 31–35 Berliner Str., POB 1122, 6236 Eschborn/Ts. WTD 3/72.

28180—GERMANY — Industrial organic chemicals, all kinds. Indroma Chemikalien GmbH. (importer, agent), 6236 Eschborn/Ts., Berliner Str. 31–35, POB 1122. WTD 3/72.

28199—GERMANY—Inorganic chemical specialties. Indroma Chemikalien GmbH. (importer, agent), 31–35 Berliner Str., POB 1122, 6236 Eschborn/Ts. WTD 3/72.

28199—NETHERLANDS—Industrial inorganic chemicals used as intermediates in cosmetics, toilet preparations, in pharmaceutical, veterinary, chemical industries. (Exclusive agency). K.V.K. Industrie- en Handelsonderneming N.V., Attn: D. E. de Jong (importer, dist., agent), 156 Soerenseweg, Apeldoorn. 3/72.

Synthetic materials

28232—IRAN—Viscose staple fibers 1.5—15 Denier, about 2,000 tons annually Dellal-Nejad, M & Sons (importer, dist., agent), Bank Pars Bldg., Bouzarjomehri Avenue, P.O. Box 206, Tehran. WTD 6/71.

Drugs

28340—EL SALVADOR—Pharmaceutical preparations, ready-made, packed. Correspondence requested in Spanish. Manuel Efraín López Droguería Cuscatlán (importer, dist., agent), Apartado Postal 230, San Salvador. WTD 12/71.

28340—SOUTH AFRICA—Generic preparations. Preparations must be F.D.A. approved. Ethical Promotions (Pty.) Ltd., Attn: H. Lazarus, (dist., agent), P.O. Box 10534, Johannesburg. WTD in prep.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28423 — CANADA — Cleaners, disinfectants for household use. Exclusive distribution rights nationally and/or regionally desired. Bernie Stevens, Eastern Dir., CanVin Products Ltd., (importer, dist., mfr.), 990 Upton Ave., LaSalle, Quebec. WTD in prep.

28445—TAIWAN—Creams, lotions, oils, lip preparations, powder. Orient Trading & Industry, Ltd., (importer, agent), P.O. Box 3240, Taipei. WTD in prep.

Paints, varnishes, lacquers, enamels

28516 — THAILAND — Plastic solders with cream hardeners using as fillers for auto body repairs. Requests c.i.f. Bangkok prices, catalogs, brochures. Sang Tong Pharmacy (importer, dist., retailer), 59 Chalerm Ket 1 Rd., Bangkok. WTD 3/72.

Chemical products

28993 — INDIA — Industrial chemicals, chemical preparations. Indian Metropolitan Trading Co., (indent agent), Commercial House—4A, 9th flr., 2 Ganesh Chandra Ave., Calcutta-13. WTD in prep.

Petroleum refining

29117 — JORDAN — Lubricating oils, greases for lubrication of vehicles. Nile Station for Automatic Lubrication (importer, dist., agent), Station Rd., Nawar Bridge, P.O. Box 1843, Amman. WTD in prep.

Steel mill products

33120—INDIA—Stainless steel. Indian Metropolitan Trading Co. (indent agent), Commercial House—4A, 9th flr., 2 Ganesh Chandra Ave., Calcutta-13. WTD in prep.

Iron, steel foundries

33214—THAILAND—Foundry for melting scrap iron, production capacity not over 1 ton per day working 24-hour/day basis. Requests c.i.f. Bangkok prices, catalogs, literature, brochure. Lee Brothers Trading Ltd., Part., (importer, dist., agent), 758 Anek Prachamitr Rd., Near Wat Dokmai, Yannawa, Bangkok. WTD in prep.

Smelting, refining of nonferrous metals

33397—INDIA—Non-ferrous metals, alloys. Indian Metropolitan Trading Co. (indent agent), Commercial House—4A, 9th flr., 2 Ganesh Chandra Ave., Calcutta-13. WTD in prep.

Cutlery, hand tools, general hardware

34231—COLOMBIA — Mechanics' hand service tools, socket wrenches, open-end wrenches, screw drivers, hex-key sets, etc. Arbelaez Jaramillo & Cia. Ltda., (agent), Edificio La Ceiba, Oficina 727. Apartado aéreo P.O. Box 5223, Medellin. WTD 3/72.

34231—ISRAEL — Hand tools, pliers, wirestrippers, wrenches, torques, screwdrivers; other mechanics' hand service tools. Sydney Import/Export Ltd. (importer, dist., agent), P.O. Box 36404, TEL AVIV. WTD in prep.

34291—THAILAND — Door lock assembly, mounting and handle; hinges; window regulators, trim clips for automotive repairs. Requests c.i.f. Bangkok prices, catalogs. Watana Bhand Phanich R.O.P. (importer, dist.), 390 Dhevi Vorayat Lane, Suan Mali, Suapah St., Bangkok. WTD 5/72.

Fabricated structural metal products

34492 — IRELAND — Portable yard ramps, loading ramps. Nevil Robb, (agent), 18 Dale Dr., Stillorgan, Co. Dublin. WTD 6/72.

Fabricated metal products

34940—GERMANY—Valves for ventilation and air conditioning systems; cocks, stop and checks, metal valves for piping systems; radiator valves, valves for heating systems C.i.f. Bremen; 3% trade discount or payment within 90 days; freight free to RR station Dorfen/Oberbayern; delivery as soon as possible. Ludwig Alt (importer, agent), D-8251 Winden Post Oberndorf, Haus Nr. 24 1/5. WTD 6/72.

Farm machinery

35222—ETHIOPIA — General line agricultural tractors; agricultural combines. Amiran Ltd. (importer, dist.), Sudan St., Bridge, P.O. Box 1843, Amman. WTD in prep.

Construction, mining, materials handling machinery, equipment

35319 — GERMANY — Self-propelled ditchers, trenchers, cutters. Dehler Edmund, (dist., agent), 155 a Wuestenhoeferstr., 43 Essen-Borbeck. WTD in prep.

35330—UNITED KINGDOM—Oil drilling equipment, notably for North Sea oil drilling rigs and or any ancillary gear

associated. Reginald Christie & Dickinson Ltd., Attn: M. Thomas, (dist.), Lonsdale Chambers, 27 Chancery Lane, London W.C.2. WTD in prep.

35360 — IRELAND — Dock loading bay equipment, dock levellers, dock bumpers. Nevil Robb, (agent), 18 Dale Dr., Stillorgan, Co. Dublin. WTD 6/72.

Metalworking machinery

35451—COLOMBIA — Threading tools, tap and die sets. Arbelaez Jaramillo & Cia. Ltda., (agent), Edificio La Ceiba, Oficina 727. Apartado aéreo, P.O. Box 5223, Medellin. WTD 3/72.

Special industry machinery

35550—UNITED KINGDOM — Graphic art materials: photo-litho plates, electrotyping materials, offset plates for producing small offset masters by diffusion transfer process, adhesive (dispensed from aerosol container) which can be used for mounting of printers' rubber stereos to metal or wooden cylinders in flexographic printing. Dantex of Bradford Ltd., Attn: R. Danon, Dir. (importer, agent), 8 Burnett St., Bradford BD1 5BJ, Yorkshire. WTD in prep.

35591 — UNITED KINGDOM — Small scale chemical waste disposal equipment. Ukotaco, (importer, dist.), Childs Ercall House, Childs Ercall, Market Drayton, Shropshire. WTD in prep.

35591—GERMANY—Chemical manufacturing industry machinery, equipment, parts. Indutec, Industrietechnik GmbH & Co. KG, (importer, dist., mfr.), 17 An der Waldesruh, 407 Rheydt. WTD in prep.

35595—FRANCE — Machinery for the production of semiconductors. Karl Suss France "K.S.L.", (importer, agent), 1, rue Louis Boussard, 91-Wissous. WTD in prep.

General industrial machinery

35610—UNITED KINGDOM — Marine pumps for the chemical or oil industries, notably for North Sea oil drilling rigs. Reginald Christie & Dickinson Ltd., Attn: M. Thomas, (dist.), Lonsdale Chambers, 27 Chancery Lane, London W.C.2. WTD in prep.

35642—ISRAEL—Purification, dust collection equipment designed to remove industrial exhaust gases, waste liquids from exhaust air streams; centrifugal steam/gas/vapor separators; filters for furnaces, pipeline; pumps; purifying towers, etc. Plastform Ltd., (importer, mfr., agent), 9 Haharoshet St., Bat-Yam. WTD in prep.

Office machines

35733—FRANCE—Semiconductor memories. Scientech, (importer, agent), 11, avenue Ferdinand Buisson, Paris 16e. WTD 6/71.

35740 — THAILAND — Automatic bookkeeping machines, bank-note counting machines. Requests brochures, literature, catalogs, c.i.f. Bangkok prices. Thai Vidhayapun Business Machines R.O.P. (importer, dist., agent), 162 Sukhumvit Rd. (Near Soi 8), Bangkok. WTD in prep.

35791—FRANCE—Addressing, dictating, duplicating, other office, store machines, n.e.c. Compagnie Européenne pour la Technologie de l'Informatique (importer, agent), 56, rue de Provence, 75-Paris 9. WTD in prep.

Special Action

Each of the following agency opportunities is deemed to rate the special attention of American manufacturers and suppliers by the U. S. Commercial Officers overseas.

26216—KOREA—Paper mills, cigarette paper. Estimated quarterly requirement 400,000 rolls. Length 5000 m min., width 27.5 mm, substance 20-24 g/m2, thickness below 0.035 mm, moisture content below 6.5%, ash below 18%, nitrogen content below 0.3%, chlorine none, core inside dia. 120 mm, tensile strength 3 kg up/27.5 mm x 180 mm (by schoper tester), porosity 90 cc/min. up (by densometer type A'), opacity whiteness 85% up (by fotvolt reflection meter), combustible excellent, astringency of ash excellent, pressmark no difference compared with standard, packing unit 40 reels original package in wooden case, the spaces of inner core and case shall be filled with bobbin or other materials for protection against shaking during ocean transportation. Whashin Industrial Co., Inc., Attn: S. H. Cho, Raw Material Dept., (importer, mfr., agent), 21-9 Cho-dong, Chung-ku, Seoul. WTD 8/71.

35223—GERMANY — Fertilizing, seeding, planting machinery. Also interested in joint venture. Indutec, Industrietechnik GmbH & Co. KG, (importer, dist., mfr.), 17 An der Waldesruh, 407 Rheydt. WTD in prep.

Service industry machines

35811 — JAMAICA — Automatic, coin-operated vending machines for bottled drinks, for 50 cycle current. Ferson & Co. Dist. Ltd., Attn: James Ferguson, (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

35820—AUSTRALIA—Commercial laundry, washing, drying; dry-cleaning machinery, equipment. Automatic Laundry Installations & Equipment, (importer), 21 Burns St., Indooroopilly Q. 4068. Attn: Mervin Huth, Mr. Robert Astle. WTD 6/72.

35851—UNITED KINGDOM—Dehumidifiers, 240 volt. Ukotaco (importer, dist.), Childs Ercall House, Childs Ercall, Market Drayton, Shropshire. WTD in prep.

35851—FRANCE—Air conditioning systems for laboratories. RUA & Cie. S.A.R.L., (importer, dist.), 146, Champs Elysées, Paris 8. WTD in prep.

35851—JAMAICA—Icemaking machines: To make ice cubes, flaked ice, with storage compartments for 50-cycle current. Ferson & Co. (Dist.) Ltd. (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

35852—JAMAICA — Air conditioners, room and unitary, for 50 cycle current. Ferson & Co. Dist. Ltd., Attn: James Ferguson (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

35853—JAMAICA — Commercial mechanical beverage cooling, dispensing equipment; juice and water coolers; for 50 cycle current. Ferson & Co. Dist. Ltd., Attn: James Ferguson (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

35853 — JAMAICA — Dry beverage coolers, approx. 36 case size; reach-in refrigerators, display cabinets; back bar coolers, glass sliding, solid door types; ice merchandisers, 50 cycle current. Ferson & Co. (Dist.) Ltd. (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

Electric transmission, distribution equipment

36110—GERMANY — Measuring instruments for stretching and torque. Only interested in "new-to-market products." Exclusive representation for Germany. Europavia-Deutschland GmbH, Attn: Heinrich Kalkbrenner, (importer, dist., agent) 84 Hohenzollernring, 5 Koeln. WTD in prep.

36110—IRELAND — Electric measuring instruments, test equipment, all types. Research & Production Ltd., (dist., mfr.), 46 Marrowbone Lane, Dublin 8. WTD 3/72.

36112 — UNITED KINGDOM — CATV test equipment, spectrum analyzers, signal generators, RF power meters. Welwyn Instrument Systems & Services Ltd. (importer, dist., agent), The Chase, Mardley Hill, Welwyn, Hertfordshire. WTD in prep.

36130—IRELAND — Switchgear, switchboard apparatus. Research & Production Ltd., (dist., mfr.), 46 Marrowbone Lane, Dublin 8. WTD 3/72.

Electrical industrial apparatus

36220—IRELAND — Industrial controls. Research & Production Ltd., (dist., mfr.), 46 Marrowbone Lane, Dublin 8. WTD 3/72.

36220—FRANCE — Industrial controls; static tranducers, ultrasonic systems. Hohl Danner, (importer, dist.), 6, rue Livio, 67-Strasbourg, Meinau. WTD 11/71.

Household appliances

36321—JAMAICA — Household refrigerators; bars, dens, offices, under 5 cu. ft.; large refrigerators, 16 cu. ft. and larger; 50 cycle current. Refrigerators 5.5 cu. ft., through 15.9 effectively restricted from importation. Due to customs duty structure, U.S. Embassy believes refrigerators 16-19.4 cu. ft., will be less popular than machines 19.5 cu. ft., and larger, which are subject to only 11 percent duty as commercial machines. Ferson & Co. (Dist.) Ltd., (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

36331—JAMAICA — Household washing machines; for 50 cycle current. Ferson & Co. Dist. Ltd., Attn: James Ferguson, (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

Electric lighting, wiring equipment

36430—GERMANY — Plug connectors, miniature. Interested only in "new to market products." Exclusive representation for Germany. Europavia-Deutschland GmbH, Attn: Heinrich Kalkbrenner, (importer, dist., agent), 84 Hohenzollernring, 5 Koeln. WTD in prep.

Radio, television receiving sets

36514 — JAMAICA — Stereo tuners, amplifiers, recorders, home music system; for 50 cycle current. Ferson & Co. Dist., Ltd., Attn: James Ferguson, (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

36515—JAMAICA—Hi-fidelity speakers, home music systems. Ferson & Co. Dist. Ltd., Attn: James Ferguson (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

36515—SWEDEN—Loudspeakers, speaker systems, electronic kits, other commercial sound equipment. SwedeMark (importer, dist., agent), Infanterigatan 1, S-171 59 Solna. WTD in prep.

36520—SWEDEN—33⅓ rpm stereophonic records, prerecorded tapes. SwedeMark (importer, dist., agent), Infanterigatan 1, S-171 59 Solna. WTD in prep.

Communication equipment

36612—THAILAND — Teleprinters and accessories. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, catalogs, brochures. B. Grimm & Co. R.O.P. (importer, dist., agent), 1643/4 Petchburi Rd. (Ext.), P.O. Box 66, Bangkok. WTD in prep.

36611—THAILAND—Crossbar telephone equipment, PABX. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, catalogs, brochures. B. Grimm & Co. R.O.P. (importer, dist., agent), 1643/4 Petchburi Rd. (Ext.), P.O. Box 66, Bangkok. WTD in prep.

36620—UNITED KINGDOM—Electronic security systems; new, advanced technology only. Digital Systems Ltd., (dist., mfr.), Fitzherbert Rd., Farlington, Portsmouth, Hampshire. WTD in prep.

36621 — JAMAICA — Two-day radio, radio-telephone systems; for commercial, industrial use. Ferson & Co. Dist. Ltd., Attn: James Ferguson (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

36621—THAILAND — Microwave communication systems. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, brochures, literature. B. Grimm & Co. R.O.P. (importer, dist., agent), 1643/4 Petchburi Rd. (Ext.), P.O. Box 66, Bangkok. WTD in prep.

36622—THAILAND—Radio broadcasting equipment up to 300 KW. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, brochures, literature. B. Grimm & Co. R.O.P. (importer, dist., agent), 1643/4 Petchburi Rd. (Ext.), P.O. Box 66, Bangkok. WTD in prep.

36624 — THAILAND — Navigational equipment, marine. Requests c.i.f. Bangkok prices, catalogs, brochures. Exclusive distributorship franchise required. B. Grimm & Co., R.O.P. (importer, dist., agent), 1643/4 Petchburi Rd. (Ext.), P.O. Box 66, Bangkok. WTD in prep.

36625—THAILAND — Radar equipment including weather, satellite radar. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, catalogs, brochures, literature. B. Grimm & Co. R.O.P. (importer, dist., agent), 1643/4 Petchburi Road (Ext.), P.O. Box 66, Bangkok. WTD in prep.

36626—FRANCE — Electronic teaching machines, teaching aids. Compagnie Européenne pour la Technologie de l'Informatique, (importer, agent), 56, rue de Provence, 75-Paris 9. WTD in prep.

36626—FRANCE — Electronic measuring instruments; multimeters, voltmeters, amperemeters, signal and spectrum analyzers. Hohl Danner, (importer, dist.), 6, rue Livio, 67-Strasbourg Meinau. WTD 11/71.

36626—THAILAND—HF-SSB transceivers, up to 12 channels, fixed and mobile; VHF/UHF transceivers, up to 24 channels, fixed and mobile. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, catalogs, brochures. B. Grimm & Co., R.O.P. (importer, dist., agent), 1643/4 Petchburi Road (Ext.), P.O. Box 66, Bangkok. WTD in prep.

36628—THAILAND—Air traffic control communication systems. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, brochures, literature. B. Grimm & Co. R.O.P. (importer, dist., agent), 1643/4 Petchburi Road (Ext.), P.O. Box 66, Bangkok. WTD in prep.

Electronic components, accessories

36790—GERMANY — Passive electronic components, all kinds. Interested only in "new-to-the-market products." Exclusive representation for Germany. Europavia Deutschland GmbH, Attn: Heinrich Kalkbrenner, (importer, dist., agent), 84 Hohenzollernring, 5 Koeln. WTD in prep.

36792—FRANCE—Capacitors. Scientech, (importer, agent), 11, avenue Ferdinand Buisson, Paris 16e. WTD 6/71.

36795—FRANCE — Sophisticated electronic components. Hohl Danner, (importer, dist.), 6, rue Livio, 67-Strasbourg Meinau. WTD 11/71.

36795—FRANCE — Microwave components, solid state, wave guides. RADIALL, (dist., mfr.), 101, rue Philbert Hoffman, 93 Rosny sous bois. WTD in prep.

36795—FRANCE—Current rectifiers, low and medium power, modular operational amplifiers, supports and connectors for soldering and wrapping. Scientech (importer, agent), 11, avenue Ferdinand Buisson, Paris 16e. WTD 6/71.

36795—FRANCE — Electronic components including operational amplifiers & sub-assemblies. Karl Suss France "K.S.L.", (importer, agent), 1, rue Louis Boussard, 91-Wissous. WTD in prep.

36795—FRANCE — Recording magnetic tapes for videorecorders. Bolex France (mfr.), 7, rue Galvani, 75-Paris 17. WTD in prep.

36795—GERMANY — Ferrite cores for electronic application. Only interested in "new-to-the-market products." Exclusive representation for Germany. Europavia-Deutschland GmbH, Attn: Heinrich Kalkbrenner, (importer, dist., agent), 84 Hohenzollernring, 5 Koeln. WTD in prep.

Motor vehicles, equipment

37141—IRAN—Automobiles parts, accessories only. Dellal-Nejad, M. & Sons (importer, agent, retailer), Bank Pars Bldg., Bouzarjomehri Avenue, P.O. Box 206, Tehran. WTD 6/71.

Engineering, laboratory, scientific, research instruments

38112—FRANCE — Refrigerated centrifuges; laboratory lyophization equipment. RUA & Cie. S.A.R.L., (importer, dist.), 146, Champs Elysées, Paris 8e. WTD in prep.

38112—FRANCE—Laboratory, scientific instruments. General Equipment S.A., (importer, dist., retailer), 113, rue St. Dominique, Paris 7e. WTD 5/72.

Instruments for measuring, controlling, indicating physical characteristics

38216—FRANCE—Gas detectors, related accessories. Société d'Exploitation des Plastiques, SEPLAST, (dist., mfr.), 13, boulevard Louise Michel, 92-Gennevilliers. WTD in prep.

Surgical, medical, dental instruments

38424 — ITALY — Hearing aids. Microelectronics, (importer, dist., agent), Via Ariodante Fabretti 5, 00161 Rome. WTD 5/72.

Photographic equipment

38612—AUSTRIA—Electro-static photocopying systems; COM equipment. Interbüro Ges.m.b.H. (importer, dist., agent), Mariahilferstrasse 136/5, A-1150 Vienna. WTD in prep.

Jewelry, silverware, plated ware

39141—JAMAICA — Aluminum, ejector type ice cube trays, approx. 10,000 per year. Ferson & Co. (Dist.) Ltd., (importer, dist., mfr.), 112 Constant Spring Rd., Kingston 8. WTD 6/72.

Toys, amusement, sporting goods

39410 — JAMAICA — Handicraft rug tying and rug weaving kits. A. V. Delfosse, (importer, dist., agent), 116 Orange St., Kingston. WTD 8/71.

39493—FRANCE—Skindiving equipment such as face masks, fins, etc. Dafnie (importer, dist., mfr.), 141, rue du Faubourg-Saint-Antoine, 75–Paris lle. WTD in prep.

Pens, pencils, office, artists' materials

39522—GERMANY—Artists' colors, oils, poster, tempera, fine art, commercial art, schools; artists' oils, fixatives, special media for cleaning, restoring oil, tempera paintings; artists' color boxes. Correspondence Requested in German. Weymar Welcker, (agent), D 6950 Mosbach, Baden, Postfach 242. WTD 6/72.

Water transportation services

44630—TAIWAN — Containerized shipping services. Orient Trading & Industry, Ltd. (importer, agent), P.O. Box 3240, Taipei. WTD in prep.

Austrian Firm Can Represent U.S. Producers In East Europe

Transmetal, a wholly-owned subsidiary of the international Metall-Chemie concern which specializes in nonferrous metals, minerals and ores, and heavy chemicals, is interested in representing U.S. manufacturers in Eastern Europe. Interested U.S. firms may write directly to: Serge G. Jacobson, Manager, Transmetal, Metallund Mineralien Handels- und Agenturgesellschaft m.b.H, Belvederegasse 2/7, Vienna 1040. WTD 6/72.

Leading Singapore Store Wants Textile Items, Apparel

A well known Singapore department store, Metro (Pte), is interested in purchasing textile piece goods, ladies', men's and children's apparel and accessories. Interested exporters should contact Mr. Yu Lie Wei, Managing Director, Metro (Pte) Ltd., 72-74 High St., Singapore 6, Rep. of Singapore.

Other Foreign Official Tenders

IRELAND—The Engineer-In-Chief, Contracts Sec., Dept. of Posts and Telegraphs, has issued tender no. C/610/8/17 for the supply and installation of **automatic telephone exchanges.** Bid deadline is 4 p.m., August 17. Copies of tender announcement and specifications are available from the Engineer-In-Chief, Contracts Sec., Dept. of Posts and Telegraphs, Marlborough St., Dublin 1 or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, U.S. Department of Commerce, Washington, D.C. 20230 ★(202-967-4822).

NIGER—The Ministere Des Postes Et Telecommunications has issued tender no. 6A/BAD for the supply of **HF SSB Equipment.** Bid deadline is September 16. Copies of tender announcement and specifications are available *in French only* from the Ministere Des Postes Et Telecommunications, Niamey, Republique Du Niger, or on a short-term loan basis to firms in the U.S. from BDC-720, U.S. Department of Commerce, Washington, D.C. 20230. ★(202-967-4822).

LIBYA—The Government invites bids for **improvement of the Port of Derna,** Stage 1 (Tender No. 1432). This project is similar to that of the Port of Misurata. It consists of: a) breakwaters, b) dredging and reclamation, c) quay walls, d) roads, pavings and fences, e) transit sheds and warehouses, f) buildings, g) drainage systems and storm waters, h) electrical service, i) navigation aids, and j) piped services—fresh water/firefighting. Specifications, tender documents are obtainable from June 3 through August 5 from the Ports & Light Corp., Damascus St., Tripoli, Libyan Arab Republic, upon payment of LD 200.200 ($614). Bid deadline is Oct. 30. The tender should be accompanied by a guarantee of LD 100,000 ($307,000). It is not divisable. Bids should be submitted to the Central Tender Board, Suliman El-Baruni St., Tripoli. More information can be obtained from Randell Palmer Treton, 61 South Warwick, London, or the Ports & Light Corp.

IRAN—The National Iranian Oil Co. has received a World Bank loan equivalent to approximately $32 million towards the cost of the **construction of the Tehran-Tabriz Pipeline, expansion of the Rey-Meshed Pipeline, and the expansion and electrification of the Ahwaz Rey Pipeline,** and is asking firms to tender for these contracts. Applicants should submit their credentials by August 5. Copies of the official announcement, which contains information on the projects and a prequalification questionnaire are available from the Construction, Water Resources & Eng. Div., BDC-742, U.S. Dept. of Commerce, Washington, D.C. 20230 ★(202-967-3602), and the U.S. Dept. of Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., P.O. Box 36013, San Francisco, Calif. 94102 ★(415-556-5864).

THAILAND—The Telephone Organization of Thailand has issued tender no. 113/15 for the supply and installation of a **microwave system for TV relay.** Bid deadline Aug. 15. Copies of tender announcement and specifications available only from Treasury Division, TOT, Ploenchit Rd., Bangkok. $100 per set.

SOUTH AFRICA—The South African Iron and Steel Industrial Corp., Pretoria, invites tenders for the design, construction, and equipment of a **complete iron ore bedding/blending and reclaiming plant and loading-out station.** Only tenders for the complete plant and equipment as specified in the tender will be considered. Tender documents are available for R250 ($333), refundable on recept of bona fide tender, from: The Head, Capital Buying South African Iron and Steel Industrial Corp., Ltd. P.O. Box 450 Pretoria, South Africa, or ISCOR Headquarters, Room C-426 Wagonwheel Circle Pretoria, South Africa. Deadline for receipt of tenders is noon, August 31. Bidders must visit and inspect site prior to submission of tender. More information is available from Construction, Water Resources & Engineering Div., Dept. of Commerce, Washington, D.C. 20230, (202-967-3262).

ITALY—The NATO Saclant ASW Research Centre, Viale San Bartolomeo 4000, 19026 La Spezia, Italy has issued a tender for **one magnetic tape unit and three memory expansions.** Bid deadline is August 8. Only U.S. firms certified by the U.S. Department of Commerce are eligible to bid on NATO projects. U.S. firms interested in certification should contact the U.S. Dept. of Commerce, Business Opportunities Division, BDC-584, Washington, D.C. 20230. Copies of the tender terms and specifications are available from the Business, Photographic and Scientific Equipment Div., BDC-708, Dept. of Commerce, Washington, D.C. 20230, ★(202-967-2939).

ALGERIA—The Chemical Industries National Corp., Ministry of Industry, has issued an invitation for bids calling for the **study and construction of a maize-antibiotics complex** in the industrial area of Rouiba-Reghaia (Alger). The complex will include a maize processing plant with capacity of 100 tons a day; production plant for antibiotics with a capacity of 50 tons per year; and auxiliary services for the two plants. The bid dossier may be obtained at a cost of $50 from: Societe Nationale des Industries Chimiques, 24, Boulevard Zirout Youcef, Algiers, Algeria. Bid deadline October 31.

Yugoslavs Seek U.S. Source To Equip Underground Garage

A Yugoslav export-import firm, Centrocoop, has been designated by Belgrade city authorities as exclusive importer for a chain of underground parking garages. Plans call for garages to have four to five levels with capacities ranging from 800-3,000 cars. Tender for equipment expected to be issued around July 1. Centrocoop is interested in U.S. sourcing for outfitting garages, particularly air conditioning, ventilating equipment and passenger elevators. Company would prefer to deal with U.S. firm able to offer complete garage package for these and related items. Interested firms should write or telex: Pavle Padetka, Centrocoop, Terazije 29, 11000 Belgrade. Telex 11-167 YUCENB.

Singapore Firm Needs Large Volume of Hotel Supplies

The Anglo-Swiss Trading Co., Pte. Ltd. of Singapore is seeking a U.S. source for hotel supplies. This trading company sells to some 50 hotels, each requiring from $10–25,000 replacement business annually. A number of new hotels are also being developed in neighboring countries. U.S. manufacturers interested in exporting linens and towels should send samples and price quotations to the Anglo-Swiss Trading Co., c/o U.S. Embassy, 30 Hill St., Singapore.

Visiting Buyers And Officials

INDIA—R. P. Raya Reddy, Managing Partner, and C. R. K. Chari, Technical Partner, A. Bond Strands, G-16 Industrial Estate, Ambattur, Madras 58, interested in contacting U.S. manufacturers of **fiberglass reinforced plastics and epoxy castings** to discuss various fiberglass reinforcing systems and obtain technical know-how on epoxy vacuum casting equipment. July 3 via New York until August. c/o Dr. Poorni Thirupuvanam, Wycoff Heights Hospital, 374 Stockholm St., Brooklyn, N.Y. 11237. Itinerary: 7/5-28 International Farm Youth Exchange Program, Fort Collins, Colorado; 7/28-8/5 New York. WTD in preparation.

INDONESIA — Henry Menaro, owner, P. T. Pelayaran Meratus, Djl. Nilam Timur 502, Tandjung Perak, Surabaya, interested in visiting **port, warehousing and stevedoring facilities, particularly containerized handling,** and in possibility of joint venture for expansion. June 15 via San Francisco for 1 month to 6 weeks. c/o Miss Evie Menaro, 2520 Durant Ave., Berkeley, Calif. 94704. Itinerary: San Francisco, Seattle, Los Angeles, Las Vegas, Grand Canyon, Miami, Washington, D.C., New York, Buffalo. WTD 1/72.

ISRAEL—Martin Koerner, Chief, Technical Dept., Koor Metal Works Ltd., P.O. Box 1944, Tel Aviv, interested in hydraulic cylinders, industrial machinery, hardware. Late June via New York for three weeks. c/o Solcoor Inc., 415 Madison Ave., New York, N.Y. 10017, (212-752-7340). Itinerary: New York, Philadelphia, others as required. WTD 7/71.

NEW ZEALAND—James Marquet, Kiwikai Co., Box 2701, Auckland, interested in importing and exporting **foods and beverages,** importing **movie film.** July 13 via Honolulu for four weeks. c/o Tom Collins, Director, Univ. of Montana, Missoula, 59801. Los Angeles, Salt Lake City, Helena, Minneapolis, Seattle, San Francisco. WTD in preparation.

NIGERIA—Mrs. Hilda Ogunbanjo, representing C & F Nigeria Ltd., P.O. Box 2592, Lagos, interested in importing into Nigeria **office equipment, including furniture and stationery,** and in meeting high school text book publishers to obtain publishing rights to books. July 7 via New York for four weeks. c/o Mr. Ogbu, Nigerian Permanent Representative to United Nations, 757 Third Ave., New York, N.Y. 10017. Itinerary: New York, across country to San Jose, Calif. WTD 9/67 under revision.

New Publications

When ordering any publications, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington, D.C. 20230, or to any of its field offices.

DOMESTIC AND INTERNATIONAL BUSINESS

BUREAU OF DOMESTIC COMMERCE

Construction review. Monthly industry report. Vol. 18, No. 5. Annual subscription $6.50 ($1.75 extra for foreign mailing). Single copy 55¢.

Printing and publishing. Quarterly industry report. Vol. 13, No. 2. Annual subscription $1 (25¢ extra for foreign mailing). Single copy 25¢.

Containers and packaging: quarterly industry report. January/April 1972. Vol. 24, No. 4 and Vol. 25, No. 1. Annual subscription $1 (25¢ more for foreign mailing). Single copy 25¢.

BUREAU OF INTERNATIONAL COMMERCE

Trade list catalog. April. Available from Bureau of International Commerce. Export Information and Services, U.S. Dept. of Commerce, Washington, D.C. 20230. Free upon request.

Index to foreign production and commercial reports. No. 4. April. Free. Export Information and Services Division, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230.

International Marketing Information Service

World Markets for U.S. Exports

Industrial and scientific instruments—France (IMIS 72-212). 16pp. 10¢.

Air-conditioning and refrigeration equipment—Jamaica (IMIS 72-219). 16pp. 10¢.

Industrial and scientific instruments—Switzerland (IMIS 72-213). 16pp. 10¢.

Overseas Business Reports

Annual subscription $16 ($5 more for foreign mailing). Single copy 15¢.

US trade with major world areas: 1966-71 (OBR 72-011). 44pp.

ECONOMIC AFFAIRS

Economic development. Vol. 9, No. 6. Annual $1 (50¢ extra for foreign mailing). Single copy 15¢.

BUREAU OF THE CENSUS

Sampling applications of the 1970 Census publications, maps, and public use summary files (Technical paper 27). May 1972. 16 pp. 25¢. This document is intended to help designers of household samples.

Congressional District Data

Districts of the 93d Congress

Missouri (CDD-93X-23). 8pp. 25¢.

Small-area data notes. Vol. 7, No. 6. 12pp. 10¢.

Investigation of Census Bureau interviewer characteristics, performance, and attitudes: a summary (Working paper 34). 32pp. 50¢. This report summarizes the work done in the Census Bureau in the area of interviewer characteristics, attitudes, and performance.

County Business Patterns: 1971

This is the 18th in a series of publications presenting first quarter employment and payroll statistics by county and industry. Summary data, by industry, are provided for the United States, the 50 States and the District of Columbia, and Puerto Rico, the Virgin Islands, American Samoa, and Guam.

Arkansas (CBP-71-5). 88pp. $1.
Delaware (CBP-71-9). 36pp. 40¢.
Georgia (CBP-71-12). 148pp. $1.25.
Indiana (CBP-71-16). 144pp. $1.25.
Kansas (CBP-71-18). 96pp. $1.
Minnesota (CBP-71-25). 108pp. $1.
Mississippi (CBP-71-26). 88pp. $1.
Missouri (CBP-71-27). 128pp. $1.25.
Nebraska (CBP-71-29). 75pp. 70¢.
New Jersey (CBP-71-32). 124pp. $1.25.
New York (CBP-71-34). 104pp. $1.75.
North Dakota (CBP-71-36). 47pp. 50¢.
Pennsylvania (CBP-71-40). 204pp. $1.75.
South Carolina (CBP-71-42). 88pp. $1.
South Dakota (CBP-71-43). 48pp. 50¢.
Washington (CBP-71-49). 80pp. 75¢.
West Virginia (CBP-71-50). 72pp. 70¢.

Agriculture

1969 Census of Agriculture—Area Reports

A separate report is published for each State, American Samoa, Guam, Puerto Rico, Trust Territory, and the Virgin Islands. The report consists of two sections. Sec. 1 contains the introduction, State summary data, county summary of selected data, miscellaneous items by counties, and an appendix giving explanations, definitions, and examples of the report forms used. Sec. 2 contains the detailed county reports.

Missouri (Vol. 1, pt. 17, Sec. 1 Summary data). 362pp. $2.75 (paper).

Missouri (Vol. 1, pt. 17, Sec. 2. County data). Adair Co.-Lewis Co. 462pp. $3.50 (paper).

Missouri (Vol. 1, pt. 17, Sec. 2. County data). Lincoln Co.-Wright Co. 469pp. $3.50 (paper).

North Dakota (Vol. 1, pt. 18, Sec. 1. Summary data). 330pp. $2.50 (paper).

North Dakota (Vol. 1, pt. 18, Sec. 2. County data). 438pp. $3.25 (paper).

New York (Vol. 1, pt. 7, Sec. 1. Summary data). 62pp. $2.75 (paper).

New York (Vol. 1, pt. 7, Sec. 2. County data). 524pp. $3.50 (paper).

Pennsylvania (Vol. 1, pt. 9, Sec. 1. Summary data). 366pp. $2.75 (paper).

Pennsylvania (Vol. 1, pt. 9, Sec. 2. County data). 550pp. $4 (paper).

Census Tract Papers

Small-area statistics—strengthening their role in Federal Government and their use in criminal justice programs (Series GE-40, No. 8). 52pp. 55¢. Papers presented at the conference on Small-Area Statistics.

Construction and housing

Value of new construction put in place: April 1972 (C30-72-4). Annual subscription $2.50, includes monthly and annual supplement. Single copy 25¢.

1970 Census of Housing

Detailed Housing Characteristics

California (HC(1)-B6). 431pp. $4.50.
New Jersey (HC(1)-B32). 219pp. $2.50.

Metropolitan Housing Characteristics

The following reports cover standard metropolitan statistical areas:

Albany, Ga. (HC(2)-4). 68pp. 65¢.
Anderson, Ind. (HC(2)-11). 48pp. 55¢.
Ann Arbor, Mich. (HC(2)-12). 48pp. 55¢.
Bay City, Mich. (HC(2)-22). 48pp. 55¢.
Bridgeport, Conn. (HC(2)-31). 76pp. 70¢.
Bristol, Conn. (HC(2)-32). 52pp. 50¢.
Charleston, W.Va. (HC(2)-41). 48pp. 55¢.
Columbia, Mo. (HC(2)-48). 52pp. 50¢.
Danbury, Conn. (HC(2)-54). 52pp. 50¢.
Durham, N.C. (HC(2)-63). 68pp. 65¢.
Fort Lauderdale-Hollywood, Fla. (HC(2)-73). 68pp. 65¢.
Fort Wayne (HC(2)-75). 52pp. 55¢.
Indianapolis (HC(2)-94). 68pp. 60¢.
Jacksonville (HC(2)-97). 48pp. 65¢.
Lafayette-West Lafayette, Ind. (HC(2)-106). 60pp. 65¢.
Lansing, Mich. (HC(2)-109). 48pp. 55¢.
Meriden, Conn. (HC(2)-131). 44pp. 50¢.
Miami (HC(2)-132). 108pp. $1.
Muncie, Ind. (HC(2)-140). 52pp. 55¢.
New Haven (HC(2)-146). 76pp. 70¢.
Newark (HC(2)-150). 128pp. $1.25.
Norwalk, Conn. (HC(2)-153). 52pp. 55¢.
Oklahoma City (HC(2)-156). 76pp. 70¢.
Owensboro, Ky. (HC(2)-159). 48pp. 50¢.
Raleigh, N.C. (HC(2)-176). 68pp. 65¢.
St. Joseph, Mo. (HC(2)-186). 52pp. 55¢.
Seattle-Everett (HC(2)-201). 84pp. 75¢.
South Bend (HC(2)-206). 52pp. 55¢.

Springfield, Mo. (HC(2)-209). 52pp. 55¢.

Springfield - Chicopee - Holyoke, Mass.-Conn. (HC(2)-211). 68pp. 65¢.

Stamford, Conn. (HC(2)-212). 52pp. 55¢.

Tampa-St. Petersburg (HC(2)-218). 108pp. $1.

Terre Haute, Ind. (HC(2)-219). 50pp. 55¢.

Trenton (HC(2)-223). 64pp. 65¢.

Tulsa (HC(2)-225). 66pp. 65¢.

Distribution and Services

Advance monthly retail sales: May 1972 (CB-72-147). 2pp. 10¢.

Monthly selected services receipts: April 1972 (BS-72-4). 12pp. Annual subscr. $1. Single copy 10¢.

Monthly wholesale trade—sales and inventories: April 1972 (BW-71-4). 20pp. Annual subscr. $1.50 (50¢ more for foreign mailing). Single copy 15¢.

Monthly department store sales in selected areas: April 1972 (BD 72-4). Annual subscription $1. Single copy 10¢.

Monthly retail trade—sales and accounts receivable: April 1972 (BR 72-4). 25¢ per copy.

Estimated sales of U.S. retail stores for week ending June 10 (CB-50). 2pp. 10¢.

Estimated sales of U.S. retail stores for week ending June 17 (CB 72-157). 2pp. 10¢.

Foreign Trade

Imports—commodity by country: March 1972 (FT 135-72-3). Annual sub. $21 ($5.25 more for foreign mailing). Single copy $1.75.

Exports—commodity by country: March 1972 (FT 410-72-3). Annual sub. $33 ($8.25 more for foreign mailing). Single copy $2.75.

Bunker fuels: April 1972 (FT 810-72-4). Annual subscription $1. Single copy 10¢.

Guide to foreign trade statistics: 1972. 198pp. $1.75. The foreign trade statistics program involves the compilation and dissemination of a large body of data relating to U.S. imports and exports.

Governments

Guide to recurrent and special governmental statistics (State and local government special studies no. 62). 184pp. $1.50.

Holdings of selected public employee retirement systems: March 31, 1972 (GR72 No. 1) 1p. 25¢.

Industry

Confectionery, including chocolate products—seasonal adjustment supplement: 1959 to 1971 (Series: M20C supplement 3). 4pp.

Fats and oils—seasonal adjustment supplement: 1959 to 1971 (Series: M20J Supplement). 12pp. $3 per year. Single copy 15¢.

Fats and oils—production, consumption and stocks: April 1972 (preliminary) (Series: M20K(72)-4). 16pp. $3 per year (including Series M20J). Single copy 15¢.

Inorganic chemicals: 1970 (Series: M28A (70)-14). 38pp. $1.50 per year. Single copy 15¢.

Mining machinery and equipment: 1971 (Series: MA-35F(71)-1). 4pp. Single copy 25¢.

Complete aircraft and aircraft engines: summary for 1971 (Series: M37G(71)-13). 8pp. $2.50 per year (including MA-37E and MQ-37D). Single copy 15¢.

Converted flexible packaging products: first quarter 1972 (Series: MQ-26F(72)-1). 4pp. $1 per year. Single copy 25¢.

Flat glass first quarter 1972 (Series: MQ-32A(72)-1). 4pp. $1 per year. Single copy 25¢.

Commercial steel forgings: 1971 (Series: MA-33C(71)-1). 4pp. 25¢.

Annual survey of manufactures: 1970 (M70(AS-8). 16pp. Single copy 25¢. Entire series (all 1970 reports) $4.50.

Clay construction products: summary for 1971 (Series: M32D(71)-13). Annual subscription $1.50. Single copy 15¢.

Sheets, pillowcases, and towels: 1971 (Series: MA-23X(71)-1). Single copy 25¢.

Carpet and rugs: first quarter 1972 (Series: MQ-22Q(72)-1). Annual subscription $1. Single copy 25¢.

Wool broadwoven goods: first quarter 1972 (Series: MQ-22T.3(72)-1). Annual subscription $1. Single copy 25¢.

Population

1970 Census of Population

General Social and Economic Characteristics

Massachusetts (PC(1)-C23). 459pp. $3.25.

Ohio (PC(1)-C37). 611pp. $4.25.

Population Characteristics

Undergraduate enrollment in two-year and four-year colleges: October 1971 (Series P-20, No. 236). 28pp. Single copy 35¢.

Population of standard metropolitan statistical areas established since the 1970 Census, for the United States: 1970 and 1960 (PC(S1)-17). Single copy 10¢.

1970 Census of Population and Housing

Census Tracts by Standard Metropolitan Statistical Areas

Anderson, Ind. (PHC(1)-10). 64pp. 55¢.

Ann Arbor, Mich. (PHC(1)-11). 92pp. and 1 map. 70¢.

Asheville, N.C. (PHC(1)-13). April 1972. 64 pp. 55¢.

Binghamton, N.Y.-Pa. (PHC(1)-25). 76pp. 75¢.

Bristol, Conn. (PHC(1)-31). 52pp. 45¢.

Chattanooga. (PHC(1)-42). 92pp. $1.

Columbia, S.C. (PHC(1)-48). 104pp. and 1 map. $1.50.

Galveston-Texas City (PHC(1)-78). 78pp. and 1 map. $1.25.

Hamilton-Middletown, Ohio (PHC(1)-85). 72pp. 60¢.

Huntsville, Ala. (PHC(1)-91). 88pp. and 1 map. $1.

Lima, Ohio (PHC(1)-113). 76pp. 60¢.

Lorain-Elyria, Ohio (PHC(1)-116). 90pp. $1.25.

Mansfield, Ohio (PHC(1)-125). 62pp. $1.

Mobile (PHC(1)-133). 110pp. and 1 map. $1.50.

Odessa, Tex. (PHC(1)-150). 66pp. 55¢.

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Utica-Rome, N.Y. (PHC(1)-222). 90pp. $1.25.

Wheeling (PHC(1)-230). 72pp. $1.

Wichita Falls, Tex. (PHC(1)-232). 74pp. 60¢.

Worcester, Mass. (PHC(1)-236). 94pp. and 1 map. 75¢.

SCIENCE & TECHNOLOGY

NATIONAL OCEANIC & ATMOSPHERIC ADMIN.

Monthly weather review. Vol. 100, No. 5. Annual subscription $10.50 ($2.75 extra for foreign mailing). Single copy $1.

National Weather Service

Great Lakes elevation corrections to ship's barometer readings to obtain sea level pressures. 20¢. This two-color folder contains the temperature-elevation correction tables and instructions for computing sea level pressure for ocean-going ships. Locations of National Weather Service offices, their phone numbers, and ratio stations disseminating these pressure readings are included.

NATIONAL BUREAU OF STANDARDS

Properties of selected superconductive materials (Tech. Note 724). 100pp. $1.

The properties concerned are composition, critical temperature, critical magnetic fields, crystallographic data, and the lowest temperature tested for materials specifically explored for superconductivity.

Methods of measurement for semiconductor materials, process control, and devices: Oct. 1 to Dec. 31, 1971 (Tech. Note 727). 79pp. 70¢. This quarterly progress report, fourteenth of a series, describes NBS activities directed toward the development of methods of measurement for semiconductor materials, process control, and devices.

Design loads for inserts embedded in concrete (BSS 42). 28pp. Single copy 35¢. Detailed test procedures are presented for a research program on cast-in-place inserts embedded in reinforced concrete. Design recommendations are included.

Manual and automated fingerprint registration (Tech. Note 730). 26pp. 35¢. A method for manually positioning a fingerprint so that manually read minutiae data can be searched by computer against a file of fingerprint data previously read by machine.

Technical news bulletin. Vol. 56, No. 6. Annual subscription $3 ($1 extra for foreign mailing). Single copy 30¢.

NATIONAL TECHNICAL INFORMATION SERVICE

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Rd., Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service.

Drug identification, properties and characteristics: narcotics, stimulants, depressants, marijuana and hallucinogens (AD-741 338). U.S. Army Land Warfare Lab., Aberdeen Proving Ground. Paper copy $6.75. 250pp. Discusses history of each drug type, its clinical use, and the physical and psychological effects of its abuse.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1972—481-358/26

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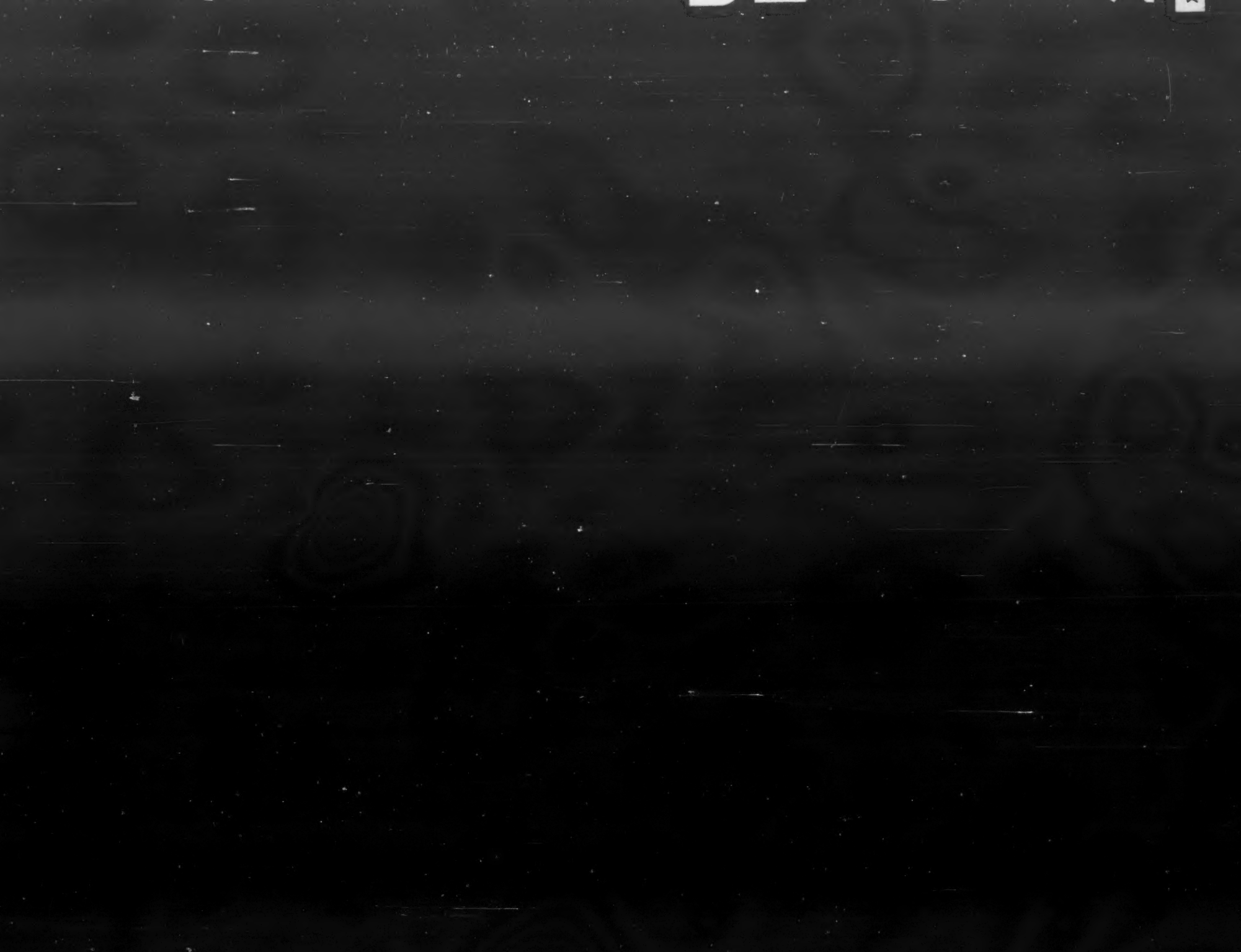
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